



Annual Groundwater Monitoring Report, November 2016 and May 2017 Sampling Events, Oconomowoc Electroplating Company Inc. (OECl) Superfund Site Town of Ashippun, Wisconsin

EPA ID# WID006100275, BRRTS# 02-14-000905





TETRA TECH

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Town of Ashippun, Wisconsin**

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August 31, 2017

**Prepared For:
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ACRONYMS AND ABBREVIATIONS

cis-DCE	cis-1-2-Dichloroethene
CVOCs	Chlorinated Volatile Organic Compounds
DO	Dissolved Oxygen
ES	NR140 Enforcement Standard
mg/L	Milligrams per Liter
MIP	Membrane Interface Probe
MNA	Monitored Natural Attenuation
MS/MSD	Matrix Spike/Matrix Spike Duplicate
OECI	Oconomowoc Electroplating Company Inc.
ORP	Oxidation-Reduction Potential
PAL	NR140 Preventive Action Limit
P/T	Pump and Treat
QA/QC	Quality Assurance/Quality Control
RI/FS	Remedial Investigation/Feasibility Study
ROD	Record of Decision
trans-DCE	trans-1,2-Dichloroethene
TCE	Trichloroethene
TOC	Total Organic Carbon
WAC	Wisconsin Administrative Code
µg/L	Micrograms per Liter
EPA	United States Environmental Protection Agency
VC	Vinyl Chloride
VOCs	Volatile Organic Compounds
WDNR	Wisconsin Department of Natural Resources

1.0 INTRODUCTION

This Annual Groundwater Water Monitoring Report presents the data obtained from the November 2016 and May 2017 groundwater monitoring events completed by Tetra Tech personnel on and in the vicinity of the Oconomowoc Electroplating Company Inc. (OECI) Superfund Site located at W2573 Oak Street in the Town of Ashippun, Dodge County, Wisconsin (Figure 1). The groundwater monitoring activities were performed in accordance with the scope of work and field operating procedures presented in the November 2014 Quality Assurance/Quality Control (QA/QC) Plan prepared by Tetra Tech for the OECI Site. The groundwater monitoring activities were performed to document the effectiveness of the monitored natural attenuation (MNA) remedy in remediating the chlorinated volatile organic compounds (CVOCs) impacts found in the groundwater on and downgradient of the OECI Site and to ensure it is protective of the nearby private water supply wells. A minor objective of the groundwater monitoring program is to use the data from the existing monitoring well network to gain a better understanding of the effects the June 2013 in-situ treatment of the contaminated soil in Area A on the OECI Site with Daramend has on CVOC concentrations in the groundwater.

2.0 OECI SITE BACKGROUND

The following background information is taken from the June 2014 request for proposal for the OECI Site prepared by the Wisconsin Department of Natural Resources (WDNR).

The OECI Site is located at W2573 Oak Street in the Town Ashippun, Dodge County Wisconsin (Figure 1). The site is approximately 10.5 acres in size. Ashippun residents rely on private wells for their source of water. The bedrock beneath the OECI Site is the Maquoketa shale underlain by dolomite of the Galena-Platteville aquifer. Private water supply wells in the vicinity of the OECI Site are completed in the Galena-Platteville aquifer.

The OECI Site consists of a 4-acre former electroplating facility and the adjacent 6.5-acre wetland area that includes a portion of Davy Creek, which is a tributary of the Rock River. The electroplating facility operated from 1957 to 1990, discharging directly into Davy Creek until 1972 when two waste lagoons were constructed. The facility included a main process building, a wastewater-treatment building, the waste lagoons and other miscellaneous storage tank and container deposit areas. Between 1991 and 1994, remedial actions at the site removed: 1) All of the facility structures; 2) 650 cubic yards of waste lagoon sediment/sludge; 3) Approximately 700 cubic yards of contaminated soil; and 4) Approximately 6,000 cubic yards of contaminated sediments in the wetlands around Davy Creek. A fenced-in building that was built in 1996 to house the former groundwater-extraction treatment plant was recently demolished during the months of January through March 2017. Several private residences are located to the west of the OECI Site, each having their own water supply wells.

The original 1990 record of decision (ROD) called for groundwater extraction and treatment (“Pump and Treat” or P/T). The P/T operated from October 1997 to July 2004. It was shut down after the EPA determined that its continued operation was no longer effective. The five extraction wells were abandoned in July 2009.

Between October 2004 and January 2009, fourteen (14) rounds of groundwater samples from a select subset of monitoring wells have taken place for the purpose of evaluating MNA as a remedy for the CVOCs in the groundwater. Evaluation of the data showed that MNA alone (i.e. unenhanced) is not sufficient in reducing the CVOCs that include trichloroethylene (TCE) and vinyl chloride (VC). These compounds continue to be detected at downgradient bedrock monitoring wells and at nearby private water supply wells.

In May 2011, a ROD Amendment was signed to modify the original ROD’s P/T (already shutdown since 2004) to MNA after either source area removal or in-situ treatment.

In February 2012, a membrane interface probe (MIP) survey was conducted at the site. The MIP survey identified several areas where TCE remained high. The survey detected TCE impacted soil as high as 36 mg/kg to a depth of 10 feet. It delineated five (5) primary areas as “source zones.” The largest of the five areas (Area A) was inadequately sampled during the early RI/FS phase (1980’s) of the Superfund project because it was then under the electroplating building (now razed).

In November 2012, another groundwater sampling event (15th since 2004) was performed. Detections of TCE and VC at the private wells have persisted since July 2005—albeit all detections were below NR 140 Enforcement Standards (ESs).

In June 2013, an in-situ soil treatment was performed at the OECEI Site to promote the chemical reduction of the CVOCs. The treatment design involved the mixing of contaminated soil within a specified depth range with Daramend, a proprietary product that consists of a soluble substrate and zero valent iron. For Area A, the soil mixing was from 8 to 14 feet below ground surface. After the mixing in Area A, approximately 11,000 gallons of water was removed from the excavation, temporarily stored in a frac tank, and then transported to a U.S. EPA-approved disposal facility operated by Waste Management outside of Milwaukee.

In November 2013, another round (16th since 2004) of groundwater samples was collected. This round included many monitoring wells (TW-202I, MW-2D, -9S, -101S, -102S, -104S and -104D) that had not been sampled since 2003. Out of the nine private wells sampled, five had VC above its NR 140 Preventive Action Limit (PAL) of 0.02 µg/L, but below the ES of 0.2 µg/L.

Semi-annual sampling of 28 of the existing OECEI Site monitoring wells was started in December 2014. The other semi-annual sampling events took place in May 2015, November 2015, May 2016, November 2016 and May 2017 and included collecting depth to groundwater measurements from the 33 existing OECEI Site monitoring wells. Annual groundwater sampling of seven residential was also started in December 2014. The other annual residential well sampling events took place in November 2015 and November 2016. As noted above, the former groundwater-extraction treatment plant building was razed January through March 2017. The demolition work included removing the security fence around the building and the concrete driveway and foundation associated with the building.

3.0 FIELD ACTIVITIES

The following field activities were performed by Tetra Tech personnel during the November 2016 and May 2017 monitoring events:

- Measured the depth to groundwater in the 33 existing OECI Site monitoring wells and noted the condition of the monitoring wells.
- Collected semi-annual groundwater samples from 28 of the OECI Site monitoring wells for laboratory analyses of volatile organic compounds (VOCs), methane, ethane, ethene, acetylene, total iron, dissolved iron, total manganese, dissolved manganese, alkalinity, chloride, sulfate and total organic carbon (TOC). At the request of the WDNR Project Manager, 1,4-dioxane was added to the analyte list for the VOCs analysis. Field measurements of sample temperature, pH, specific conductance, oxidation-reduction potential (ORP), dissolved oxygen (DO) and turbidity were also taken during the semi-annual sampling events.
- Collected annual groundwater samples from seven (7) residential wells during the November 2016 sampling event for laboratory analysis of VOCs including 1,4-dioxane. Please note, one residential well that is part of the groundwater monitoring program was not sampled because nobody answered the telephone or returned the voice messages left by Tetra Tech personnel and nobody answered the door the days Tetra Tech personnel were on-site performing the November 2016 monitoring event.
- Notified the property owners (and residents if different than the property owner) within 10 days of the receipt of the analytical reports from the laboratory subcontractor of the VOCs results. The notification included completing WDNR Form 4400-249, *Site Investigation Sample Results Notification*, and submitting electronic copies of the analytical reports and WDNR Form 4400-249 to the WDNR Project Manager.

The November 2016 monitoring event took place October 31 through November 4, 2016 and the May 2017 sampling event took place May 8 through May 12, 2017. The groundwater samples were collected from the OECI Site monitoring wells using the low-flow sampling method in accordance with the low-flow groundwater sampling procedures included in Appendix A of the November 2014 QA/QC Plan. The groundwater samples were collected from the seven residential wells in accordance with the private residential well groundwater sampling procedures included in Appendix A of the November 2014 QA/QC Plan.

Photographs documenting the conditions of the OECI site monitoring wells from which depth to groundwater measurements and groundwater samples are collected are provided in Appendix A. Photographs of the four outside spigots which are used to collect the groundwater samples from four of the private residential wells were taken during the May 2017 monitoring event and are also provided in Appendix A. The residential wells on the 2601 Oak Street property (well identification = PW-03), the 2606 Elm Street property (well identification = PW-09) and the 2613 Elm Street property (well identification = PW-11) are sampled from indoor faucets at the request of the

property owners. Photographs of the indoor sample taps were not taken as annual sampling of the residential wells is performed during the November monitoring events.

Isoconcentration maps showing the degree and extent of TCE and VC impacts in the shallow-depth, mid-depth and bedrock monitoring wells from the April 2003, May 2015 and May 2016 groundwater sampling events are included in Appendix B. Copies of the laboratory subcontractor (CT Laboratories LLC, Baraboo, Wisconsin) analytical reports are provided in Appendix C. Field groundwater level measurement and groundwater sampling records are presented in Appendix D. The procedures used during these activities are described in the following sections.

3.1 Depth to Groundwater Measurements and Well Inspections

Depth to groundwater measurements were collected from all 33 of the OEI Site monitoring wells during the November 2016 and May 2017 monitoring events. The depth to groundwater measurements and the groundwater elevations calculated from the measurements are presented on Table 1. Groundwater elevation data from the previous reporting period (November 2014 to June 2016) are also included on Table 1. Vertical gradients calculated for the nested monitoring wells are listed on Table 2.

The condition of the surface seals and monitoring well casings were also noted by the Tetra Tech environmental technician at the time the depth to groundwater measurements were collected. The conditions of the monitoring wells were un-changed from the conditions noted during the December 2014 through May 2016 monitoring events except that the flush mount cover on monitoring well MW-104D and the well cap placed over the PVC well casing by Tetra Tech during the previous sampling event were missing. Depth to groundwater measurements are only collected from MW-104D. Photographs documenting the conditions of the monitoring wells are included in Appendix A. The monitoring wells were found to be in good condition except for the following three instances:

1. The concrete pad around the steel above ground protective casing of monitoring well MW-13S is heaved up several inches causing the protective casing to wobble.
2. Monitoring well TW-202I does not have a protective casing around its PVC well casing. A locking plug is on the PVC casing but the lack of a protective casing does not conform to the monitoring well construction requirements of Chapter NR141 of the Wisconsin Administrative Code (WAC).
3. As noted above, the well cap and flush mount well cover are missing from monitoring well MW-104D. MW-104D is located in a driveway on the south side of the Town of Ashippun Highway Department property. The missing well cap and flush mount well cover were most likely removed by a snow plow blade this past winter as the flush mount protective cover sticks up several inches above the surface of the asphalt driveway on the Town of Ashippun Highway Department property.

The groundwater depths were measured using a decontaminated electronic water level meter to record the depth-to-water below a surveyed reference point (top of well casing). The water level meter was slowly lowered into the monitoring well until the meter was activated (as indicated by an audible tone). The depth-to-water reading was then measured to the nearest 0.01 feet and

recorded on a field water level data sheet. The water level meter was decontaminated between locations as described in Section 3.5. Copies of the field water level data sheets are provided in Appendix D.

3.2 Monitoring Well Sampling Procedures

The following 28 OECl Site monitoring wells are on the semi-annual groundwater sampling list: MW-1S, MW-1D, MW-2D, MW-3D, MW-4S, MW-5D, MW-9S, MW-12S, MW-12D, MW-12B, MW-13S, MW-13D, MW-15S, MW-15D, MW-15B, MW-16S, MW-101S, MW-101B, MW-102S, MW-102D, MW-103S, MW-103D, MW-105S, MW-105D, MW-105B, TW-202I, OW-6 and MW-14DR. Dedicated sample tubing was used to collect the groundwater samples from the OECl Site monitoring wells to eliminate the potential for cross-contamination of the samples.

The groundwater samples were collected using the low-flow sampling method as described in “Field Operating Procedure No. 1 – Low-Flow Groundwater Sampling Procedures” included in Appendix A of the November 2014 QA/QC Plan and in accordance with s. NR 140.16 WAC. A peristaltic pump and dedicated Teflon®-lined polyethylene tubing were used by the Tetra Tech environmental technician to purge and sample each monitoring well.

A multi-parameter water quality meter and flow-through cell was used to measure the pH, ORP, DO, turbidity, specific conductance and temperature of the groundwater during the low-flow purging process. The multi-parameter water quality meter was calibrated prior to the start of each sampling event in accordance with the procedures presented in “Field Operating Procedure No. 4 – Equipment Calibration” included in Appendix A of the November 2014 QA/QC Plan and the multi-parameter water quality meter manual. The monitoring wells were purged at low pumping rates to keep the drawdown in the monitoring wells at or below 0.33 feet. The purging process was stopped after three successive pH, ORP, DO, turbidity, specific conductance and temperature readings taken during the low-flow purging process were within the stabilization criteria ranges listed below:

- pH: Plus or minus 0.1.
- ORP: Plus or minus 10 millivolts
- DO: Plus or minus 0.3 milligrams per liter (mg/L)
- Turbidity: plus or minus 10% (when turbidity is greater than 10 nephelometric units).
- Specific Conductance: Plus or minus 3%.
- Temperature: Plus or minus 1 Degree Celsius.

The three final stabilized pH, ORP, DO, turbidity, specific conductance and temperature readings taken during the low-flow purging process were entered on Tetra Tech low-flow sampling method field water quality sampling and analysis forms. Copies of the low-flow sampling method forms containing the three final stabilized pH, ORP, DO, turbidity, specific conductance and temperature readings are provided in Appendix C. The final stabilized field parameters readings are also included on Table 3. The groundwater samples submitted for laboratory analyses were collected directly from the dedicated tubing of the monitoring wells at the discharge end of the peristaltic pump in sample containers provided by the laboratory subcontractor. The samples submitted for dissolved iron and manganese analyses were filtered in the field using disposable 0.45 micron filters in accordance with procedures described in “Field Operating Procedure No. 5 – Field

Filtering Samples” included in Appendix A of the November 2014 QA/QC Plan. The disposable filters were connected directly to the dedicated tubing of the monitoring wells at the discharge end of the peristaltic pump and the sample containers provided by the laboratory subcontractor were filled directly from the outlet of the disposable filters.

3.3 Residential Well Sampling Procedures

Annual groundwater samples were supposed to be collected from eight residential wells located west of the OECI Site during the November 2016 sampling event. The well identifications and property addresses of the eight residential wells are listed below:

1. PW-03: 2601 Oak Street
2. PW-04: 2605 Oak Street
3. PW-05: 2611 Oak Street
4. PW-07: 2602 Elm Street
5. PW-08: 2603 Elm Street
6. PW-09: 2606 Elm Street
7. PW-10: 2607 Elm Street
8. PW-11: 2612 Elm Street

A groundwater sample was not able to be collected from the residential well located on the 2611 Oak Street (PW-05) property. The occupant of the 2611 Oak Street property did not answer or return repeated telephone calls made by the Tetra Tech environmental technician to schedule the sampling of the well and nobody answered the door on the days the Tetra Tech environmental technician was on site performing the November 2016 monitoring event.

Tetra Tech personnel collected the groundwater samples from the residential wells on the 2605 Oak Street (PW-04), 2602 Elm Street (PW-07), 2603 Elm Street (PW-08) and 2607 Elm Street (PW-10) properties from an outside tap (before any household treatment system) after purging for a minimum of 10 minutes in accordance with the procedures described in “*Field Operating Procedure No. 9 – Private Residential Well Groundwater Sampling Procedures*” included in Appendix A of the November 2014 QA/QC Plan. Photographs of the outside sample taps are provided in Appendix A. A garden hose attached to the outside tap was used to discharge the purge water away from the foundation of the house. The garden hose was removed from the outside tap after the purging was completed. As noted in Section 3.0, the residential wells on the 2601 Oak Street (PW-03), 2606 Elm Street (P-09) and 2612 Elm Street (PW-11) properties were sampled from a faucet inside the houses at the request of the property owners. Water was purged for a minimum of 10 minutes from the inside faucet prior to collecting the groundwater samples. After the 10 minute purging period was complete, a groundwater sample was collected in a clean container from the tap and field measurements of pH, specific conductance and temperature were taken using a multi-parameter water quality meter. The field measurements were recorded on Tetra Tech private well field water quality sampling and analysis forms. Copies of the completed field forms are included in Appendix D. The groundwater samples submitted for laboratory analysis were collected in sample vials provided by the laboratory subcontractor.

3.4 Sample Analysis and Quality Assurance/Quality Control

The groundwater samples collected from the OECI Site monitoring wells and residential wells were submitted for laboratory analysis of VOCs by EPA Method 8260C. As previously noted, 1,4-dioxane was added to the VOCs analyte list for the November 2016 and May 2017 sampling events at the request of the WDNR Project Manager. The monitoring wells groundwater samples were also submitted for laboratory analysis of the following MNA parameters:

- Dissolved Gases (Methane, Ethane, Ethene, Acetylene): Method RSK 175
- Total Iron & Manganese: EPA Method 6010C
- Dissolved Iron & Manganese: EPA Method 6010C
- Alkalinity: EPA Method 310.2
- Chloride: EPA Method 9056
- Sulfate: EPA Method 9056
- Total Organic Carbon (TOC): EPA Method 9060A

Copies of the laboratory subcontractor analytical reports from each monitoring event are included in Appendix C. The monitoring wells samples analytical results and field parameters data are summarized on Table 3. The residential wells samples analytical results are presented on Table 4. Both tables include the data obtained from the previous semi-annual monitoring events, which were performed in December 2014, May 2015, November 2015 and May 2016.

The groundwater samples collected from the residential wells were collected directly from a spigot. The groundwater samples collected from the monitoring wells were collected directly from the dedicated Teflon®-lined polyethylene tubing. The water level meter used to collect the depth-to-water measurements during the low-flow purging process was decontaminated before and between each use with powdered Alconox® mixed in potable water and a distilled water rinse. The container used to measure the field parameters for the residential wells samples and the flow-through cell used to measure the field parameters during the low-flow purging and sampling of the monitoring wells were also cleaned between samples with a powdered Alconox® wash and distilled water rinse.

The following quality assurance/quality control samples were collected in accordance with the November 2014 QA/QC Plan during the November 2016 and May 2017 monitoring events:

- Trip blanks provided by the laboratory subcontractor were included with each sample shipment to the laboratory subcontractor. The trip blank samples were analyzed for VOCs.
- Duplicate groundwater samples were collected from monitoring wells MW-103D and MW-105S during each sampling round and submitted for laboratory analyses of the same parameters as the original groundwater samples collected from the monitoring wells. Matrix Spike and Matrix Spike Duplicate (MS/MSD) samples were also analyzed by the laboratory subcontractor during each sampling round.
- No equipment blank samples were collected because the laboratory-provided sample containers were filled directly from the dedicated sample tubing for the monitoring wells samples and directly from the well spigots for the residential wells samples.

The laboratory QA/QC samples produced several qualified results as follows:

Qualified Results from November 2016 Sampling Round:

1. The acetone results for the groundwater samples collected from monitoring wells MW-1S, MW-12S and MW-105S were qualified because acetone was detected in an associated method blank. Acetone was not detected in any of the other November 2016 sampling round groundwater samples.
2. The reported tetrahydrofuran detections in the groundwater samples collected from monitoring wells MW-2D, MW-3D, MW-16S, MW-103S and MW-103D were qualified because it was detected in an associated method blank. The only other sample from the November 2016 sampling event that had a tetrahydrofuran detection was the PW-07 residential well sample. The laboratory did not qualify the tetrahydrofuran detection in the PW-07 sample as being detected in an associated method blank; however, the trip blank sample (TB-1), which was part of the sample shipment to the laboratory that included the PW-07 sample, had a reported concentration of tetrahydrofuran at a very similar concentration (0.49 µg/L for TB-1 vs. 0.44 µg/L for PW-07), which suggests the tetrahydrofuran detection in the PW-07 sample was a laboratory contaminant. Tetrahydrofuran was not detected in the PW-07 samples collected during the previous annual residential wells sampling events, which supports the conclusion that the tetrahydrofuran detection in the November 2016 sampling round sample collected from PW-07 was a laboratory contaminant.
3. The Matrix Spike and/or Matrix Spike Duplicate recovery was outside acceptance limits for the parameters and groundwater samples listed below:

Sample/Monitoring Well ID	Parameter(s)
MW-1S	Total Iron
MW-4S	Total Chloride and Total Sulfate
MW-5D	Methane

MW-12S	Methane
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Qualified Results for May 2017 Sampling Round:

1. All of the acetone results for the groundwater samples collected from the OECI site monitoring wells were qualified because acetone was detected in an associated method blank.
2. The reported chloromethane detections in the groundwater samples collected from monitoring wells MW-1S, MW-1D, MW-2D, MW-12D, MW-12B, MW-13S, MW-13D, MW-105D, MW-105B, TW-202I and OW-6 were qualified because it was detected in an associated method blank.
3. The methylene chloride and tetrahydrofuran results for the groundwater samples collected from monitoring wells MW-16S, MW-103S and MW-105S were qualified because it was detected in an associated method blank. Tetrahydrofuran was not detected in any of the other groundwater samples.
4. The acetone and methylene chloride results for the groundwater sample collected from monitoring wells MW-103D were qualified because the Replicate/Duplicate precision was outside acceptance limits.
4. The Matrix Spike and/or Matrix Spike Duplicate recovery was outside acceptance limits for the parameters and groundwater samples listed below:

Sample/Monitoring Well ID	Parameter(s)
MW-16S	Total Chloride, Total Iron, Total Sulfate and Methylene Chloride
MW-102D	Total Chloride and Total Sulfate
MW-103S	Dissolved Manganese and Total Sulfate
MW-103D	Acetone

The duplicate groundwater samples generally produced results that were similar to the original samples with relative percent difference values ranging from 0.0% to 23.7% for the duplicate samples collected during the November 2016 sampling event and from 0.0% to 25.7 % for the duplicate samples collected during the May 2017 sampling event except for the following instances:

1. The reported total iron concentration for the original and duplicate samples collected from MW-103D during the November 2016 sampling event were 0.0831 mg/L and 0.133 mg/L respectively for a relative percent difference of 46.2 %.
2. The reported total iron concentrations for the original and duplicate samples collected from MW-105S during the November 2016 sampling event were 3.41 mg/L and 4.71 mg/L respectively for a relative percent difference of 32.0 %.

3. The reported ethane concentrations for the original and duplicate samples collected from MW-105S during the November 2016 sampling event were 0.6 µg/L and 1.3 µg/L respectively for a relative percent difference of 73.7 %.
4. The reported methane concentrations for the original and duplicate samples collected from MW-105S during the November 2016 sampling event were 21 µg/L and 41 µg/L respectively for a relative percent difference of 64.5 %.
5. The reported total iron concentrations for the original and duplicate samples collected from MW-103D during the May 2017 sampling event were 0.0699 mg/L and 0.0487 mg/L respectively for a relative percent difference of 3.5.8 %.
6. The reported methane concentrations for the original and duplicate samples collected from MW-105S during the May 2017 sampling event were 9.7 µg/L and 15 µg/L respectively for a relative percent difference of 42.9 %.

3.5 Investigative Derived Waste Management

The groundwater purged from the OECI Site monitoring wells during the low-flow sampling method purging process was contained in 5-gallon containers at the well locations and then poured into a 55-gallon drum stored on the OECI Site. After the groundwater sampling activities were completed, the contained groundwater was passed through two granular activated carbon filters and discharged to a grass-covered portion of the OECI Site property. A portable electric utility pump and garden hose was used to pump the groundwater from the 55-gallon drum through the carbon filters. A water sample from the discharge end of the carbon filters was collected in sample vials provided by the laboratory subcontractor and submitted for laboratory analysis of VOCs (EPA Method 8260C) to document the VOC concentrations that remained in the groundwater discharged to the grass-covered area. The sample name for the November 2016 sampling event post carbon filter sample is FILTER BLANK and the VOCs results are included in Analytical Report 123492 (Appendix B). The sample name for the May 2017 sampling event post carbon filter sample is FILTER BLANK and the VOCs results are included in Analytical Report 127351 (Appendix B). The filter blank sample collected at the end of the November 2016 sampling round contained detectable concentrations of VOCs including TCE at 14 ug/L, which indicated the carbon filters were spent and needed to be replaced. The carbon filters used for the November 2016 sampling round were also used for the May 2016 sampling round. New filters were purchased for the May 2017 sampling round and the May 2017 sampling round filter blank sample only had low-level detections (less than 0.72 ug/L) of acetone, naphthalene, tetrachloroethene (PCE) and toluene.

The groundwater purged from the sample taps of the residential wells prior to the collection of the groundwater samples was discharged to the ground surface for the wells that were sampled using an outside spigot and to the sink drain for the wells that were sampled from an inside tap.

All used personal protective equipment and disposable sampling equipment was collected in trash bags and disposed of as general refuse.

4.0 MONITORING RESULTS

4.1 Groundwater Flow and Gradients

The depth to groundwater measurements collected from the OECI Site monitoring wells during this reporting period and the groundwater elevations calculated from the depth to groundwater measurements are presented on Table 1. Water table contours were produced from the depth to groundwater measurements collected from monitoring wells MW-1S, MW-4S, MW-9S, MW-12S, MW-13S, MW-15S, MW-16S, MW-101S, MW-102S, MW-103S, MW-104S, MW-105S and MW-106S during the November 2015 and May 2016 monitoring events. The water table contours are shown on Figure 2 and indicate the general direction of groundwater flow at the water table across the OECI Site is to the southwest, towards Davy Creek. The average horizontal gradient calculated from the water table contours ranged from 0.0041 for the November 2016 monitoring event to 0.0049 for the May 2017 monitoring event. The average horizontal gradients from the previous reporting period were very similar with a gradient of 0.0037 for the November 2015 water table contours and 0.0066 for the May 2016 water table contours. Table 1 includes the height of the water column in the monitoring wells calculated from the depth to groundwater measurements and listed well depths. All of the shallow-depth (water table) monitoring wells have 10-foot screen lengths so a water column height greater than 10 feet indicates the top of the well screens were submerged during the monitoring event in which the water level measurements were collected. Review of the water column height data for the water table monitoring wells indicates the top of the well screens in monitoring wells MW-1S, MW-9S, MW-12S, MW-16S, MW-105S and MW-106S were submerged for the six monitoring events performed in December 2014, May 2015, November 2015, May 2016, November 2016 and May 2017. The well screen was entirely submerged in monitoring well MW-103S during the December 2014, May 2015, May 2016, November 2016 and May 2017 monitoring events and the well screens in monitoring wells MW-4S, MW-13S and MW-104S were entirely submerged during the May 2015, May 2016, November 2016 and May 2017 sampling events. The depth that the top of the well screens were submerged ranged from 0.15 feet in MW-13S during the May 2016 monitoring event to 8.25 feet in MW-9S during the November 2016 monitoring event. The top of the well screens were not submerged (water column height less than 10 feet) during all six of the monitoring events in monitoring wells MW-15S, MW-101S and MW-102S.

Potentiometric surface contours were produced from the depth to groundwater measurements collected from the following mid-depth unconsolidated deposits monitoring wells: MW-5D, MW-12D, MW-13D, MW-14DR, MW-15D, MW-102D, MW-103D, MW-104D, MW-105D, MW-106D and TW-202I. The mid-depth potentiometric surface contours are shown on Figures 3 and indicate the general direction of groundwater flow in the mid-depth monitoring wells is also to the southwest towards Davy Creek. The average horizontal gradient calculated from the mid-depth unconsolidated deposits monitoring wells potentiometric surface contours were 0.0019 for the November 2016 monitoring event and 0.0022 for the May 2017 monitoring event. The average horizontal gradient calculated from the November 2015 monitoring event mid-depth monitoring wells water level data was 0.0057 and the gradient calculated from the May 2015 water level data was 0.0024.

Potentiometric surface contours were produced from the depth to groundwater measurements collected from the nine OECI Site bedrock monitoring wells, which are as follows: MW-1D, MW-2D, MW-3D, MW-4D, MW-12B, MW-15B, MW-101B, MW-105B and OW-6. The bedrock potentiometric surface contours are shown Figure 4 and indicate the general direction of groundwater flow in the bedrock is from east to west across the OECI Site. The average horizontal gradients calculated from the bedrock monitoring wells potentiometric surface contours were 0.028 for the November 2016 monitoring event and 0.017 for the May 2017 monitoring event. The average gradients calculated from water level data collected during the previous reporting period were 0.024 for the November 2015 monitoring event and 0.011 for the May 2017 monitoring event.

Vertical gradients were calculated for the nested OECI Site monitoring wells from the depth to groundwater measurements. The vertical gradient calculations are presented on Table 2. The positive vertical gradient values on Table 2 represent downward flow directions while the negative vertical gradient values represent upward flow directions. As shown on Table 2, downward vertical gradient values ranged from 0.3604 to 0.0035 while upward vertical gradient values ranged from 0.0307 to 0.0011 during this reporting period. The vertical gradients calculated for the OECI Site monitoring well nests indicate vertical gradients are downward at the monitoring well nests located west of the former OECI electroplating facility (MW-15S/D/B, MW-101S/B and MW-102S/D nests) and at monitoring well nest MW-4S/D, which is located near the northwest corner of the former OECI facility. Review of the vertical gradient data for the MW-15S/D/B well nest shows MW-15B has consistently had the deepest depth to groundwater measurement for each measurement event and the largest downward vertical gradient. The high downward vertical gradient from the unconsolidated deposits to the bedrock in this area is most likely due to the pumping from the nearby residential water supply wells. At monitoring well nest MW-1S/D, which is located on the north side of the Town of Ashippun Highway Department property east of the former OECI facility, the vertical gradient was downward during the November 2016 sampling event and upward during the May 2017 sampling event. The same situation occurred during the previous reporting period at the MW-1S/D with a downward gradient of 0.0154 measured during the November 2015 sampling round and an upward gradient of -0.0051 measured during the May 2017 sampling round. Upward vertical gradients were measured during both the November 2016 and May 2017 monitoring events in the second monitoring well nest located on the Town of Ashippun Highway Department property (MW-104S/D nest), which is on the south side of the property near Elm Street. Upward vertical gradients were also measured in monitoring well nest MW-103S/D, which is located in the southeast corner of the OECI facility on the north side of Elm Street. Vertical gradients were upward for both monitoring events conducted during this reporting period at the monitoring well nests located south of Elm Street in the wetland near Davy Creek (MW-12S/D/B, MW-13S/D, MW-105S/D/B and MW-106S/D). The monitoring wells south of Elm Street are located in or near the wetland that borders Davy Creek. The vertical gradient data from the monitoring well nests south of Elm Street suggest groundwater discharges to the wetland and Davy Creek.

4.2 Monitoring Wells Sample Results

The final stabilized field parameters readings taken during the low-flow purging of the monitoring wells and the laboratory results for the groundwater samples collected from the monitoring wells are summarized on Table 3. Review of the VOCs data presented on Table 3 shows several CVOCs

are present at concentrations exceeding their respective NR140 ESs and/or PALs in one or more of the groundwater samples collected from the OECI Site monitoring wells during the November 2016 and May 2017 sampling events. The CVOCs are listed below:

Compound	NR140 Enforcement Standard (ES) (µg/L)	NR140 Preventive Action Limit (PAL) (µg/L)	RL (µg/L)	LOQ (µg/L)	Number of Wells: ES or Greater	Number of Wells: PAL or Greater, but Less Than ES	Number of Wells with a J-flagged Result	Number of Wells with a Detection
1,1,1-Trichloroethane	200	40	0.050	0.17	0	1	1	6
1,1-Dichloroethane	850	85	0.060	0.19	0	0	6	12
1,1-Dichloroethene	7.0	0.7	0.060	0.20	1	5	7	9
1,2-Dichloroethane	5.0	0.5	0.050	0.18	0	1	2	3
cis-1,2-Dichloroethene (cis-DCE)	70	7.0	0.070	0.23	2	7	4	18
Methylene Chloride	5.0	0.5	0.050	0.16	3	4	1	7
Tetrachloroethene	5.0	0.5	0.050	0.18	1	1	1	2
trans-1,2-Dichloroethene (trans-DCE)	100	20	0.040	0.14	1	1	5	14
Trichloroethene (TCE)	5.0	0.5	0.050	0.17	7	1	9	14
Vinyl chloride (VC)	0.2	0.02	0.020	0.060	9	3	4	12

Notes:

RL = Undiluted Reporting Limit LOQ = Undiluted Limit of Quantitation

J flag = Reported concentration was between the RL and LOQ.

The methylene chloride detections for 2 of the 3 samples that exceeded the ES were qualified as also having methylene chloride detected in an associated method blank.

Dedicated sample tubing was used to collect the groundwater samples from the OECI Site monitoring wells so no cross-contamination is expected.

Time series charts showing the trends in TCE concentrations and the concentrations of cis-DCE and VC, which are the primary biodegradation breakdown products of TCE, in 23 of the monitoring wells that are part of the OECI site groundwater sampling program are included as Charts 1 through 23. Time series charts were not produced for monitoring wells MW-4S, MW-15B, MW-101S and MW-102S because TCE, cis-DCE and VC have not been detected in any of the groundwater samples collected from the wells. A time series chart was not produced for monitoring well MW-12B because cis-DCE and VC have not been detected in any of the samples collected from MW-12B and TCE was only detected in two of the samples at very low concentrations of less than 0.030 µg/L, which is well below its Chapter NR140 PAL of 0.50 µg/L. The trend lines are displayed as dashed lines on the charts. The 2009 through 2013 data presented on the charts was downloaded from the WDNR GEMS on the Web (GOTW) Public Access website. Review of the charts reveals the following:

- TCE, cis-DCE and VC have not been detected in the following monitoring wells from 2009 to 2017:

TCE	cis-DCE	VC	Notes
1. MW-1D (BR) 2. MW-3D (BR) 3. MW-4S 4. MW-15B (BR) 5. MW-101S 6. MW-102S	1. MW-1D (BR) 2. MW-4S 3. MW-9S 4. MW-12B (BR) 5. MW-15B (BR) 6. MW-101S 7. MW-102S	1. MW-1S 2. MW-4S 3. MW-9S 4. MW-12B (BR) 5. MW-15S 6. MW-15B (BR) 7. MW-101S 8. MW-101B (BR) 9. MW-102S 10. OW-6 (BR) 11. MW-14DR (Pz)	Monitoring wells with an “S” designation are shallow-depth water table monitoring wells. Pz: Mid-depth unconsolidated deposits monitoring well. BR: Bedrock monitoring well.

- TCE, cis-DCE and VC concentrations are exhibiting an overall decreasing trend from 2009 to 2017 in the monitoring wells listed below:

TCE	cis-DCE	VC	Notes
1. MW-5D (Pz) 2. MW-9S 3. MW-12S 4. MW-12D (Pz) 5. MW-12B (Br) 6. MW-13S 7. MW-15S 8. MW-15D (Pz) 9. MW-16S 10. MW-101B (BR) 11. MW-102D (Pz) 12. MW-103D (Pz) 13. MW-105S 14. MW-105D (Pz) 15. MW-105B (BR) 16. TW-202I (Pz) 17. OW-6 (BR) 18. MW-14DR (Pz)	1. MW-5D (Pz) 2. MW-12S 3. MW-12D (Pz) 4. MW-13S 5. MW-15S 6. MW-15D (Pz) 7. MW-16S 8. MW-101B (BR) 9. MW-103S 10. MW-103D (Pz) 11. MW-105D (Pz) 12. MW-105B (BR) 13. OW-6 (BR) 14. MW-14DR (Pz)	1. MW-1D (BR) 2. MW-12S 3. MW-12D(Pz) 4. MW-13S 5. MW-13D (Pz) 6. MW-16S 7. MW-105B (BR) 8. TW-202I (Pz)	Monitoring wells with an “S” designation are shallow-depth water table monitoring wells. Pz: Mid-depth unconsolidated deposits monitoring well. BR: Bedrock monitoring well.

- TCE, cis-DCE and VC concentrations appear to be stable in the following monitoring wells from 2009 to 2017:

TCE	cis-DCE	VC	Notes
1. MW-13D (Pz)		1. MW-3D (BR) 2. MW-15D (Pz)	Monitoring wells with an “S” designation are shallow-depth water table monitoring wells. Pz: Mid-depth unconsolidated deposits monitoring well. BR: Bedrock monitoring well.

- TCE, cis-DCE and VC concentrations are exhibiting an increasing trend from 2009 to 2017 in the monitoring wells listed below:

TCE	cis-DCE	VC	Notes
1. MW-1S 2. MW-2D (BR) 3. MW-103S	1. MW-1S 2. MW-2D (BR) 3. MW-3D (BR) 4. MW-13D (Pz) 5. MW-102D (Pz) 6. MW-105S 7. TW-202I (Pz)	1. MW-2D (BR) 2. MW-5D (Pz) 3. MW-102D (Pz) 4. MW-103S 5. MW-103D (Pz) 6. MW-105S 7. MW-105D (Pz)	Monitoring wells with an “S” designation are shallow-depth water table monitoring wells. Pz: Mid-depth unconsolidated deposits monitoring well. BR: Bedrock monitoring well.

- The data presented above shows TCE concentrations are non-detect, stable or decreasing in 25 of the monitoring wells (up from 23 for the previous reporting period), cis-DCE concentrations are non-detect, stable or decreasing in 21 of the monitoring wells (up from 19 for the previous reporting period) and VC concentrations are non-detect, stable or decreasing in 21 of the monitoring wells (up from 18 for the previous reporting period).
- As noted above, TCE concentrations in monitoring wells MW-1S, MW-2D and MW-103S exhibited an increasing trend from 2009 to 2017, which is down from five for the previous reporting period. However, review of the time series chart for MW-2D shows TCE has not been detected in MW-2D in the last three sampling events since Daramend was applied to Area A in June 2013. The increase in TCE impacts since the Daramend application in June 2013 in monitoring well MW-1S, which is located northeast and upgradient of the OECI property, is very small and the concentrations are below the NR140 PAL of 0.50 µg/L. The reported TCE concentration in MW-1S increased from less than the detection limit of 0.020 µg/L in November 2013 to 0.15 µg/L in May 2017. TCE concentrations in MW-103S (southeast side of former OECI facility) were exhibiting an overall decreasing trend until the May 2017 sampling event with a reported TCE concentration of 170 µg/L, which is above the pre-Daramend application concentration of 110 µg/L.

- The greatest decrease in TCE impacts from the January 2009 to May 2017 sampling events occurred at water table monitoring well MW-105S with TCE concentrations declining from 2,400 µg/L in January 2009 to 1,200 µg/L in May 2017. However, review of the time series chart for MW-105S shows the TCE concentration increased from 1,300 µg/L in November 2012 to 3,700 µg/L in November 2013. TCE concentrations were also much lower in earlier sampling events conducted in 2003 through 2006 with TCE concentrations at 560 µg/L in 2003 and less than 100 µg/L 2004 through 2006 so an overall decreasing trend in MW-105S is not yet evident. The MW-105S/D/B monitoring well nest is located south of Elm Street in the wetland area on the OECI Site.

Review of the time series chart for mid-depth unconsolidated deposits monitoring well MW-105D (Chart 24) shows TCE, cis-DCE and VC concentrations increased from January 2009 to November 2012, but have been on a decreasing trend since Daramend was applied to Area A of the OECI Site in June 2013. The low-level (less than 0.12 µg/L) TCE, cis-DCE and VC impacts in bedrock monitoring well MW-105B have also declined since the June 2013 application of Daramend in Area A to the point that all three compounds have not been detected in the samples collected during the last three sampling events (see Chart 25).

- TCE impacts also decreased significantly in mid-depth monitoring well MW-103D, which is located north of Elm Street on the south side of the former OECI electroplating facility. Reported TCE concentrations were 740 µg/L and 780 µg/L (duplicate sample) in the samples collected from MW-103D in January 2009 and were 380 µg/L and 360 µg/L (duplicate sample) in the samples collected during the May 2017 sampling event.
- The greatest decrease in VC impacts occurred at water table monitoring well MW-16S with VC concentrations declining from 97 µg/L in November 2012 to 28 µg/L in May 2017. MW-16S is located south of Elm Street in the wetland area on the OECI site. Review of the MW-16S time series chart (Chart 16) also shows that cis-DCE concentrations increased from 770 µg/L in November 2012 to 1,400 µg/L in November 2013 (about five months after Daramend was applied to Area A) but have since been on a declining trend with the cis-DCE concentration in the May 2017 sample down to 870 µg/L. TCE was not detected in the samples collected from MW-16S during the last four sampling events.
- Review of the chart for mid-depth unconsolidated deposits monitoring well MW-5D (Chart 6), which is located north of Elm Street near the southeast corner of the former OECI electroplating facility, shows that while TCE and cis-DCE impacts are on an overall declining trend from 2009 to 2017, the TCE and cis-DCE concentrations have been on an increasing trend from the November 2015 sampling event to the May 2017 sampling event. Vinyl chloride concentrations have also been on an increasing trend from not detected (detection limit = 0.65 µg/L) in January 2009 to 4.7 µg/L in May 2017. The data from MW-5D suggest biological reductive dechlorination processes are reducing TCE concentrations in the OECI Site plume and producing cis-DCE and VC.
- Review of the time series chart for mid-depth unconsolidated deposits monitoring well MW-15D (Chart 14), which is located on the north side of the Elm Street right-of-way

west of the OECI Site, shows a declining trend in TCE and cis-DCE impacts from 2009 to 2017. VC concentrations in MW-15D were below the detection limit of 0.019 µg/L for the samples collected during the January 2009, November 2013 and May 2015 events and below the detection limit of 0.016 µg/L for the sample collected during the May 2016 sampling event. However, VC was detected at a J-flagged concentrations of 0.02 µg/L in the sample collected during the December 2014 sampling event and 0.03 µg/L in the sample collected during the November 2015 sampling event, which are at to slightly above the NR140 PAL of 0.020 µg/L. The J-flag qualifier indicates the VC concentrations in the samples were lower than the LOQ for the samples and therefore the listed concentrations are estimate values. VC has not been detected in the last three groundwater samples collected from MW-15D, which suggests a declining trend since the November 2015 sampling event.

VC concentrations in mid-depth monitoring well MW-102D, which is located on the south side of the Elm Street right-of-way approximately 180 feet west of the MW-15S/D/B well nest, increased from 0.067 µg/L in January 2009 to 0.32 µg/L in May 2016 and VC concentrations have been above ES of 0.20 µg/L since the May 2015 sampling round. However, VC concentrations in MW-102D have exhibited a declining trend since the May 2016 sampling event. The most recent groundwater monitoring results from MW-15D and MW-102D suggest VC impacts near the western edge of the OECI Site plume are on a declining trend.

TCE and VC isoconcentration maps for the shallow-depth unconsolidated deposits monitoring wells, mid-depth unconsolidated deposits monitoring wells and bedrock monitoring wells were produced from the May 2017 sampling event analytical data. The isoconcentration maps are included as Figures 5 through 10 and are discussed below. The discussion also includes a comparison of the shallow-depth (water table), mid-depth and bedrock monitoring wells isoconcentration maps produced from the May 2017 sampling event to the isoconcentration maps produced from the May 2016 sampling event for the August 23, 2016 annual monitoring report. Copies of the May 2016 sampling event isoconcentration maps are provided in Appendix B. Shallow-depth and mid-depth isoconcentration maps produced from a groundwater sampling event conducted in April 2003 are also included in Appendix B. The May 2016 sampling event shallow depth, mid-depth and bedrock monitoring wells isoconcentration maps were compared to the May 2015 sampling event isoconcentration maps for the August 23, 2016 progress report. The May 2015 sampling event shallow-depth and mid-depth monitoring wells isoconcentration maps were compared to the April 2003 sampling event isoconcentration maps for the August 26, 2015 annual monitoring report.

4.2.1 Shallow-Depth and Mid-Depth Monitoring Wells Isoconcentration Maps Discussion

As shown on Figure 5, monitoring well MW-105S, which is located south of Elm Street in the wetland area near Davy Creek, has the highest TCE impacts in the shallow groundwater with a reported TCE concentration of 1,200 µg/L. The occurrence of the highest shallow-depth TCE impacts in the wetland area instead of in or near the source areas on the former OECI electroplating facility can be attributed to the remedial actions performed in the source areas including the application of Daramend in Area A in June 2013. The presence of predominantly downward

vertical gradients north of Elm Street and upward vertical gradients in the wetland area also contribute to the highest TCE impacts near the water table occurring in the wetland. Monitoring wells MW-12S, which is also located south of Elm Street in the wetland, and MW-103S, which is located north of Elm Street on the south side of the former OECI facility, are the other two shallow-depth monitoring wells with TCE impacts above the NR140 ES of 5.0 µg/L with reported TCE concentrations of 64 µg/L and 170 µg/L respectively. Low-level (less than 0.5 µg/L) TCE impacts are found at monitoring wells MW-9S (0.16 µg/L), located north of Elm Street on the former OECI electroplating facility, and MW-1S (0.15 µg/L), located near the northeast corner of the former OECI electroplating facility on the Town of Ashippun Highway Department property. TCE was not detected in the other shallow-depth monitoring wells on the OECI Site monitoring plan (MW-4S, MW-13S, MW-15S, MW-16S, MW-101S and MW-102S).

Comparison of the shallow-depth (water table) monitoring wells May 2016 sampling event TCE isoconcentration map to the May 2017 sampling event TCE isoconcentration map indicates TCE impacts north of Elm Street on the former OECI electroplating facility increased from 2016 to 2017. Specifically, the reported TCE concentration in monitoring well MW-103S increased from 57 µg/L in May 2016 to 170 µg/L in May 2017. MW-4S and MW-9S are the two other shallow-depth monitoring wells located on the former OECI facility that are sampled during the groundwater monitoring events. TCE was not detected in the samples collected from MW-4S in May 2016 and May 2017 and the reported TCE concentration in MW-9S declined slightly from 0.18 µg/L in May 2016 to 0.16 µg/L in May 2017. TCE impacts also exhibited an increase between the May 2016 and May 2017 sampling events at monitoring well MW-1S (0.061 µg/L to 0.15 µg/L), located on the north side of the Ashippun Highway Department property east of the OECI facility and MW-12S (48 µg/L to 64 µg/L), which is located in the wetland area near Davy Creek (south of Elm Street). TCE concentrations at MW-15S, which is located on the north side of Elm Street and west of the former OECI facility, declined from 0.098 µg/L in May 2016 to not being detected above the detection limit 0.050 µg/L in May 2017. TCE concentrations also declined in monitoring well MW-13S, which is located in the wetland south of Elm Street, from 0.051 µg/L in May 2016 to not being detected above the detection limit 0.050 µg/L in May 2017. The reported TCE concentration in monitoring well MW-105S, located south of Elm Street in the wetland near Davey Creek, was the same for the May 2016 and May 2017 sampling events (1,200 µg/L). TCE was not detected in the other shallow-depth monitoring wells that were sampled in May 2016.

Figure 6 shows the mid-depth TCE plume is larger than the water table TCE plume (Figure 5) and the bedrock TCE plume (Figure 7). The greater TCE plume extent in the mid-depth zone can be attributed to the migration of impacts away from the source areas on the former OECI electroplating facility due to advection, dispersion and groundwater flow. As discussed in Section 4.1, horizontal groundwater flow in the unconsolidated deposits is generally to the southwest and to the west in the bedrock. Vertical gradients are predominantly downward north of Elm Street so the TCE impacts originating on the former OECI electroplating facility would move downward as groundwater flows to the southwest and west. As shown on Figure 6, the highest TCE impacts in the mid-depth monitoring wells occurs at monitoring well MW-103D, which is located north of Elm Street on the south side of the former OECI electroplating facility, with a reported TCE concentration of 380 µg/L. TCE impacts above the NR140 ES of 5.0 µg/L are also present at monitoring wells MW-5D (78 µg/L), which is located near the southeast corner of the former OECI electroplating facility, TW-202I (12 µg/L), which is located about 18 feet south of Elm Street near

the intersection of Eva Street and Elm Street, and MW-15D (10 µg/L), which is located on the north side of the Elm Street right-of-way west of the OECI Site. The reported TCE concentration in mid-depth monitoring well MW-105D (0.55 µg/L), which is located in the wetland south of Elm Street, exceeds the NR140 PAL of 0.50 µg/L. TCE was not detected in the groundwater sample collected from monitoring well MW-13D and low-level (less than 0.20 µg/L) TCE impacts occur in the three other mid-depth monitoring wells that are on the OECI Site sampling list (MW-12D, MW-14DR and MW-102D).

Comparison of the mid-depth monitoring wells May 2016 sampling event TCE isoconcentration map to the May 2017 sampling event TCE isoconcentration map shows TCE impacts declined slightly or were stable in monitoring wells MW-13D, MW-15D, MW-102D, MW-103D and MW-105D. TCE impacts increased at on-site monitoring well MW-103D from 54 µg/L in May 2016 to 78 µg/L in May 2017. TCE impacts also exhibited very slight increases at MW-12D (0.10 µg/L to 0.11 µg/L) and MW-14DR (0.016 µg/L to 0.18 µg/L). TCE concentrations were the same for both sampling events (12 µg/L) at monitoring well TW-202I. The highest TCE impacts in the mid-depth monitoring wells for both sampling events occurs at monitoring well MW-103D, which is located north of Elm Street on the south side of the former OECI electroplating facility.

As shown on Figure 8, the highest VC impacts in the shallow groundwater occur at monitoring well MW-16S, which is located in the wetland south of Elm Street, with a reported VC concentration of 28 µg/L. VC concentrations also exceed the NR140 ES of 0.20 µg/L at monitoring wells MW-12S (0.52 µg/L) and MW-105S (7.9 µg/L), which are also located in the wetland south of Elm Street, and at monitoring well MW-103S (0.85 µg/L), which is located north of Elm Street on the south side of the former OECI electroplating facility. VC was not detected in the seven other water table monitoring wells that are on the OECI Site sampling list (MW-1S, MW-4S, MW-9S, MW-13S, MW-15S, MS-101S and MW-102S).

The shallow-depth monitoring wells VC plume produced from the May 2016 sampling event data is very similar to the shallow-depth VC plume produced from the May 2017 sampling event. Monitoring well MW-16S had the highest VC impacts in both sampling rounds. The VC concentrations at monitoring wells MW-12S, MW-103S and MW-105S exceeded the NR140 ES for VC and no VOCs were detected in the seven other shallow-depth (water table) monitoring wells in both sampling rounds. Review of the analytical data shows VC concentrations decreased slightly from 0.79 µg/L to 0.52 µg/L in MW-12S and from 1.5 µg/L µg/L to 0.85 µg/L in MW-103S while VC impacts increased slightly from 23 µg/L to 28 µg/L in MW-16S and from 6.4 µg/L to 7.9 µg/L in MW-105S.

Comparison of Figure 8 and Figure 9 shows the mid-depth VC plume extends further west than the shallow-depth VC plume. The NR140 ES of 0.20 µg/L for VC was exceeded in the May 2017 groundwater samples collected from five of the mid-depth monitoring wells (MW-5D, MW-12D, MW-102D, MW-103D and MW-105D). The groundwater sample collected from monitoring well MW-5D, which is located north of Elm Street near the southeast corner of the former OECI electroplating facility, had the highest VC concentration of the mid-depth monitoring wells at 3.1 µg/L. The reported VC concentration for the sample collected from monitoring well MW-13D (0.032 µg/L) exceeded the NR140 PAL of 0.02 µg/L. VC was not detected in the groundwater samples collected from monitoring wells MW-14DR, MW-15D and TW-202I.

Comparison of the May 2016 and May 2017 sampling events mid-depth monitoring wells VC isoconcentration maps shows the degree and extent of the mid-depth VC plumes produced from the May 2016 and May 2017 data are very similar. VC was not detected in the samples collected from monitoring wells MW-14DR, MW-15D and TW-202I during both sampling events. Review of the analytical results also shows VC impacts decreased slightly at monitoring wells MW-5D (4.7 µg/L to 3.1 µg/L), MW-12D (0.80 µg/L to 0.79 µg/L), MW-13D (0.046 µg/L to 0.032 µg/L) and MW-102D (0.32 µg/L to 0.25 µg/L) while VC concentrations increased slightly at monitoring wells MW-103D (0.50 µg/L to 1.5 µg/L) and MW-105D (1.7 µg/L to 2.9 µg/L).

4.2.2 Bedrock Monitoring Wells Isoconcentration Maps Discussion

Eight bedrock monitoring wells are sampled as part of the OECI Site monitoring program. As shown on Figure 7, TCE was not detected in any of the groundwater samples collected from the bedrock monitoring wells. During the May 2016 sampling event, TCE was only detected at a concentration of 0.045 µg/L in the groundwater sample collected from monitoring well MW-101B, which is well below the NR140 PAL of 0.50 µg/L. MW-101B is located west of the OECI Site on the west side of the Eva Street right-of-way.

As shown on Figure 10, VC was only detected in one bedrock monitoring well during the May 2017 sampling event, namely MW-1D. The reported VC concentration in the MW-1D sample was 0.078 µg/L, which is below the NR140 ES of 0.20 µg/L but above the PAL of 0.02 µg/L. VC was not detected in monitoring well MW-1D during the May 2016 sampling event, but was detected at a concentration of 0.076 µg/L in the groundwater sample collected from MW-1D during the May 2017 sampling event. VC was only detected in the groundwater sample collected from MW-3D during the May 2016 sampling event at a concentration of 0.024 µg/L. The bedrock VC plume isoconcentration maps produced from the May 2016 and May 2017 sampling events suggest low-level VC impacts are detected sporadically in some of the bedrock monitoring wells, but the detections are all well below the NR140 ES.

4.2.3 MNA Parameters Results

The MNA parameters results from the May 2017 sampling event for the shallow-depth unconsolidated deposits monitoring wells, mid-depth unconsolidated deposits monitoring wells and bedrock monitoring wells are listed on Figures 11 through 13. The stabilized DO and ORP measurements taken at the end of the low-flow purging process suggest conditions conducive for reductive dechlorination of TCE (DO less than 0.50 mg/L or ORP less than 50 mV) are present at most of the mid-depth unconsolidated deposits monitoring wells except at monitoring well MW-14DR located on the northwest side of the former OECI electroplating facility and MW-103D located on the south side of the former OECI facility. The DO and ORP data from the shallow-depth monitoring wells produced mixed results, but suggest reducing conditions exist on the north side of the former OECI Site electroplating facility at monitoring wells MW-1S and MW-4S and on the southeast side of the former OECI Site electroplating facility at monitoring well MW-9S. The DO and ORP data also indicate reducing conditions are present in the shallow groundwater

beneath the wetland on the south side of Elm Street around monitoring wells MW-16S and MW-105S. The DO and ORP data from the bedrock monitoring wells also produced mixed results with DO values below 0.50 mg/L in 4 of the 8 bedrock monitoring wells and ORP values below 50 mV in 6 of the monitoring wells.

The scoring system for MNA parameters presented in the June 2006 Minnesota Pollution Control Agency Site Remediation Section report entitled “*Natural Attenuation of Chlorinated Solvents in Ground Water*” was used to evaluate the MNA data from the May 2017 sampling event. A copy of the Table included in Appendix B of the June 2006 Minnesota Pollution Control Agency Site Remediation Section report that lists the scoring criteria for the MNA parameters is included in Appendix D. Points are also given if VC, cis-DCE or chloroethane are present in the sample. VC and cis-DCE are produced during the biological reductive dechlorination of TCE and chloroethane is a product of VC biodegradation under reducing conditions. Zero, one, two, three or minus three points were assigned to each MNA parameter result for each of the groundwater samples collected from the OECI Site monitoring wells during the May 2017 sampling event based on the scoring criteria listed on the Table in Appendix D. The total points given for the monitoring wells samples and the interpretation as to whether the MNA parameters data is indicative of conditions favorable for natural biodegradation of chlorinated ethenes is presented on Table 5. The scores calculated from the May 2015 and May 2016 sampling events data, which were discussed in the two previous annual monitoring reports, are also included on Table 5. As listed on Table 5, samples with a total score between 0 and 5 are considered to have inadequate evidence for biodegradation. Groundwater samples from 22 of the OECI Site monitoring wells either had a negative score or fell within 0 to 5 range. Nine of the 22 were water table monitoring wells, six were mid-depth unconsolidated deposits monitoring wells and seven were bedrock monitoring wells. A total score between 6 and 14 provides limited evidence for biodegradation. Groundwater samples from six of the OECI Site monitoring wells were within this range. Two of the six were water table monitoring wells, three were mid-depth unconsolidated deposits monitoring wells and one was a bedrock monitoring well.

4.3 Residential Wells Sample Results

Groundwater sample results for the residential wells are presented on Table 4. TCE and VC are the primary contaminants of concern for the residential wells as both have been detected above their respective Chapter NR140 PALs in several of the residential wells samples from previous sampling events. The TCE and VC results for the residential wells are summarized below:

Compound	Trichloroethene (µg/L)					Vinyl Chloride (µg/L)				
	2012	2013	2014	2015	2016	2012	2013	2014	2015	2016
PW-03	<u>0.61</u>	<u>0.71</u>	<u>0.62</u>	<u>0.69</u>	<u>0.62</u>	<0.019	<u>0.033</u>	<0.019	<0.016	<0.019
PW-04	NS	NS	NS	0.086 J	0.089 J	NS	NS	NS	<0.016	<0.019
PW-07	0.026	<0.020	<0.020	0.031 J	<0.050	0.063	<u>0.064</u>	<u>0.05 J</u>	<u>0.053</u>	<u>0.041 J</u>
PW-08	0.074	<0.020	0.083	0.069 J	0.11 J	<0.019	<u>0.04</u>	<u>0.045 J</u>	<u>0.043 J</u>	<0.019
PW-09	0.063	<0.020	0.06 J	0.068 J	0.066 J	0.057	<u>0.057</u>	<u>0.056 J</u>	<u>0.055</u>	<0.019
PW-10	<0.020	<0.020	<0.020	<0.030	<0.050	<0.019	<0.019	<0.019	<u>0.021 J</u>	<0.019
PW-11	<0.020	<0.020	<0.020	<0.030	<0.050	<0.019	<u>0.029</u>	<u>0.039 J</u>	<u>0.04 J</u>	<0.019

Notes:

- The in-situ treatment of soil in source Area A with Daramend took place in June 2013 between the 2012 and 2013 sampling events.
- NS = Not Sampled
- J flag = Reported concentration was between the detection limit and limit of quantitation (LOQ).
- Underlined values exceed the Chapter NR140 Preventive Action Limit for trichloroethene and vinyl chloride, which are 0.50 µg/L and 0.020 µg/L respectively.

As shown above, VC was detected in one of the seven residential wells (PW-07) November 2016 sampling round samples at a concentration exceeding the Chapter NR140 PAL of 0.02 µg/L but below the ES of 0.20 µg/L. As noted above, the one VC detection from the November 2016 sampling round is a J-flagged result, which indicates the VC concentration in the sample was lower than the LOQ of 0.064 µg/L and therefore the listed concentration is an estimated value. As shown in the table above, VC was detected in five of the residential wells samples collected during the November 2015 sampling event at concentrations above the PAL but below the ES. The November 2015 and November 2016 VC results suggests VC impacts are declining in the bedrock residential wells. The reported TCE concentration in the groundwater sample collected from the residential well located on the 2601 Oak Street property (Well ID: PW-03) during the November 2016 sampling event exceeded the NR140 PAL of 0.50 µg/L. The reported TCE concentrations in the three other residential wells samples that had TCE detections were below the PAL. None of the other compounds detected in the residential wells samples exceeded their respective NR140 groundwater quality standards.

The residential wells sampling results were reported to the property owners and to the occupants of the house if the property owners did not reside on the property using WDNR Site Investigation Sampling Results Notification Form 4400-249. A copy of the analytical report for the groundwater sample collected from the residential well, a table summarizing the analytical results and figure showing the location of the residential well on the property were included with the Site Investigation Sampling Results Notification Form. Copies of the notifications were also submitted to the WDNR Project Manager for the OECI Site, Mr. Aristeo (Resty) Pelayo, via email. Copies of the notifications are provided in Appendix F.

5.0 CONCLUSIONS

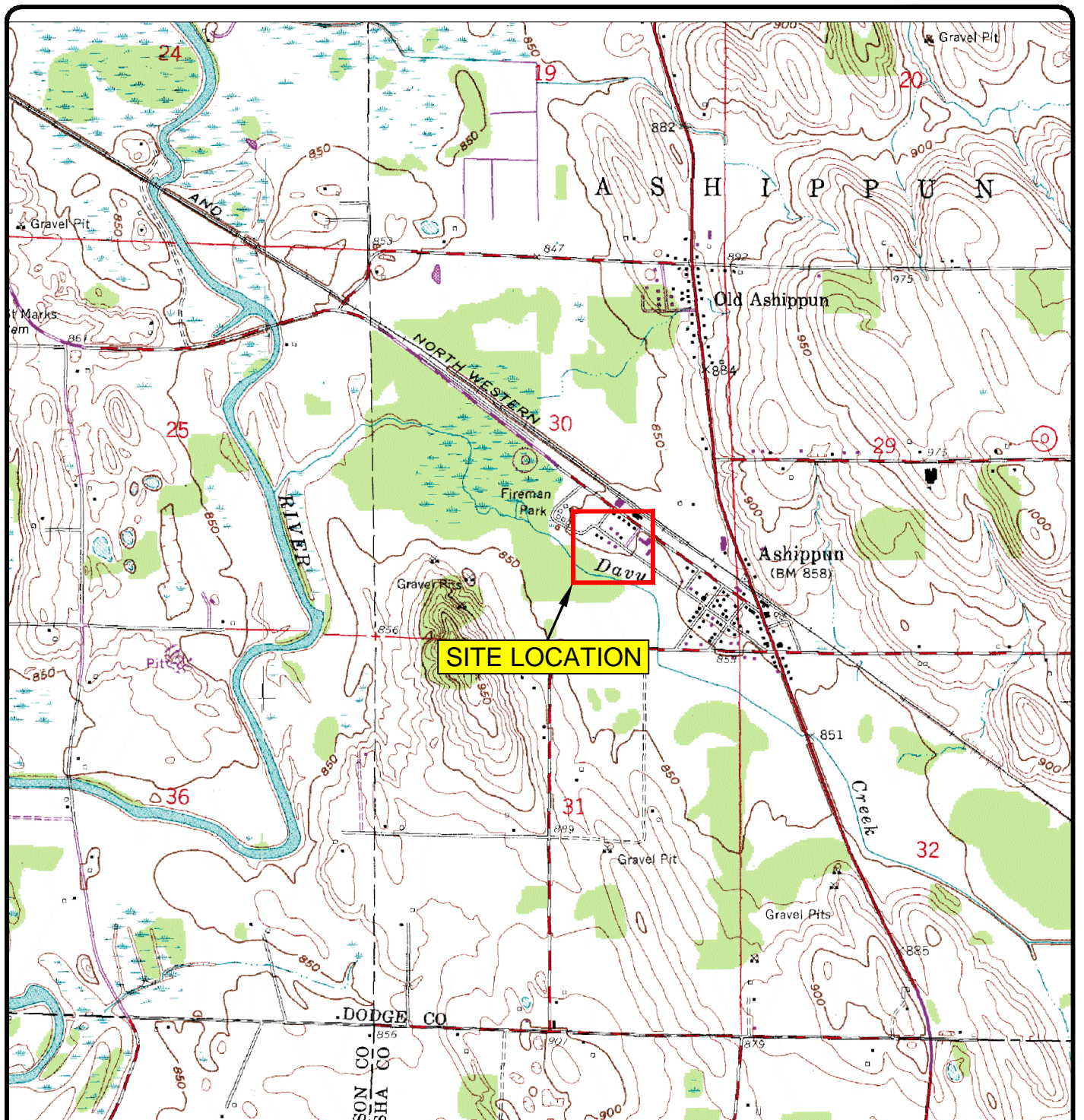
The depth to groundwater measurements collected from the OECI Site monitoring wells during the November 2016 and May 2017 groundwater monitoring events indicate groundwater flow is predominantly to the southwest, toward Davy Creek, in the unconsolidated deposits and to the west in the bedrock. The flow directions produced from the November 2016 and May 2017 monitoring events are consistent with the flow directions produced from the four previous monitoring events. Based on the vertical gradients calculated from the nested OECI Site monitoring wells water level data, vertical gradients are predominantly upward in the wetland area located south of Elm Street and predominantly downward north of Elm Street. The vertical gradient data from the monitoring well nests south of Elm Street suggest groundwater discharges to the wetland and Davy Creek.

The VOCs analytical data indicate the center of mass of the TCE plume is south of Elm Street and the highest TCE impacts occur at water table monitoring well MW-105S (1,200 $\mu\text{g/L}$). TCE was detected in all but one of the mid-depth unconsolidated deposits monitoring wells and the TCE plume extends further west in the zone monitored by the mid-depth monitoring wells compared to the zone monitored by the water table monitoring wells. The analytical data from the bedrock monitoring wells and residential wells indicate TCE impacts are of very limited extent in the bedrock and where present do not exceed the NR140 ES of 5.0 $\mu\text{g/L}$. The monitoring wells time series charts produced from January 2009 through May 2017 sampling events analytical results indicate TCE concentrations are non-detect, stable or decreasing in 25 of the 28 monitoring wells that are part of the OECI Site groundwater sampling program, which suggests the OECI Site plume is stable to decreasing.

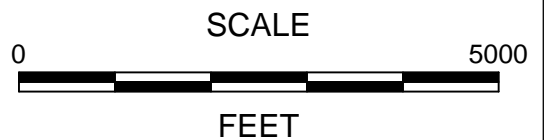
The groundwater sample collected from water table monitoring well MW-16S during the May 2017 sampling event had the highest VC impacts (28 $\mu\text{g/L}$), which places the center of mass of the VC plume south of Elm Street. VC impacts exceeding the NR140 ES of 0.20 $\mu\text{g/L}$ are most extensive in the zone monitored by the mid-depth unconsolidated deposits monitoring wells. The analytical results from the bedrock monitoring wells and residential wells indicate VC impacts in the bedrock, where present, do not exceed the NR140 ES and are less extensive compared to the extent of VC impacts in the unconsolidated deposits.

The presence of VC and cis-DCE in many of the monitoring wells samples indicate reductive dechlorination of TCE is occurring within the OECI Site contaminant plume. However, the MNA parameters data suggest site conditions are not optimal for natural biodegradation.

FIGURES



National Geodetic Vertical Datum of 1929
Contour Interval 10 Feet



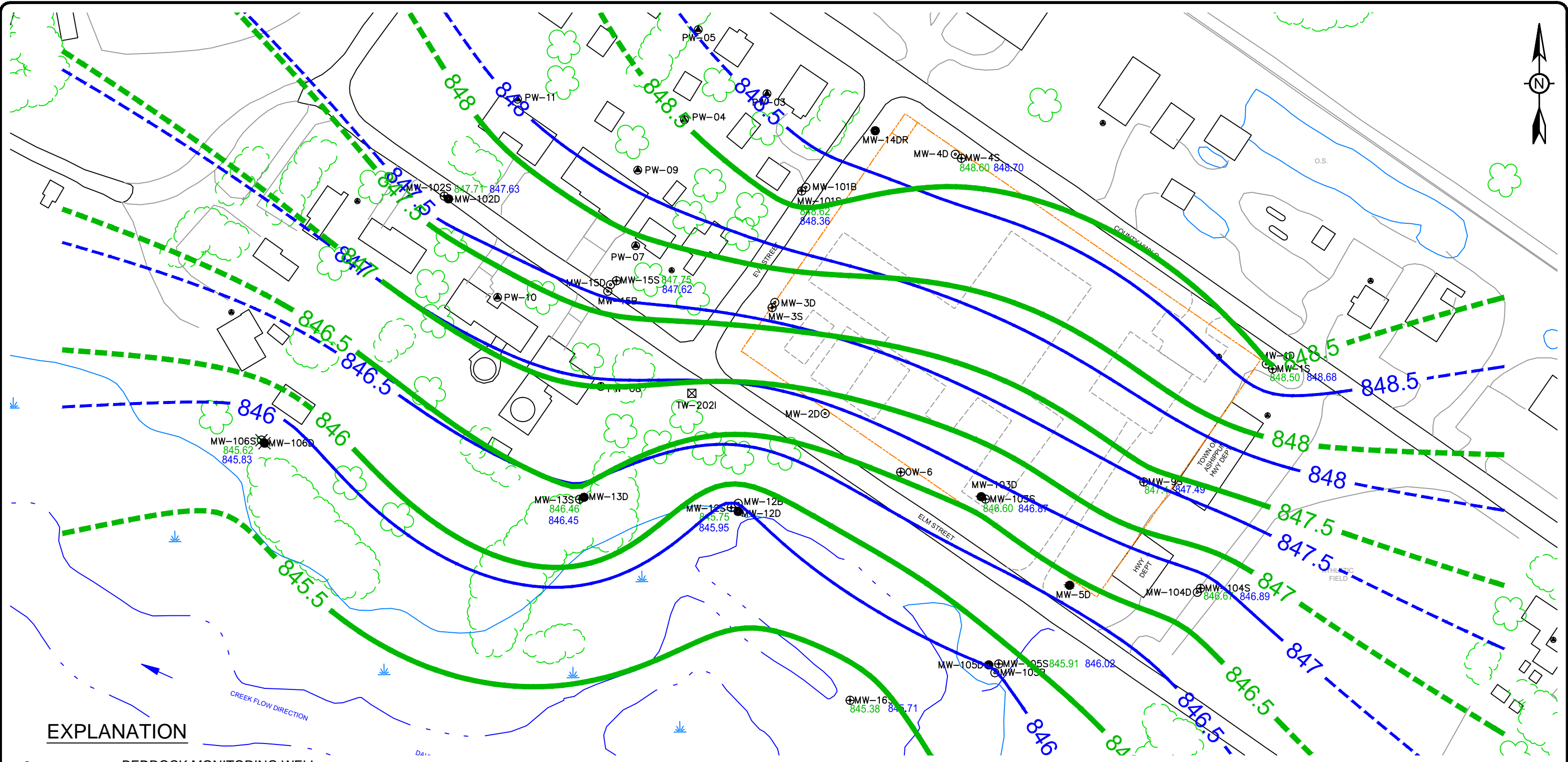
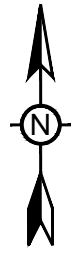
Base map from U.S.G.S. 7.5' IXONIA,
WISCONSIN topographic quadrangle map.

TITLE: OCONOMOWOC ELECTROPLATING COMPANY, INC.
SITE LOCATION MAP

LOCATION: ASHIPGUN, WISCONSIN



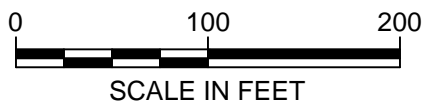
CHECKED	MAM	FIGURE: 1
DRAFTED	HJW	
PROJECT	117-7413001	
DATE	7/1/15	



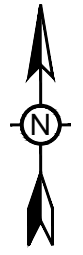
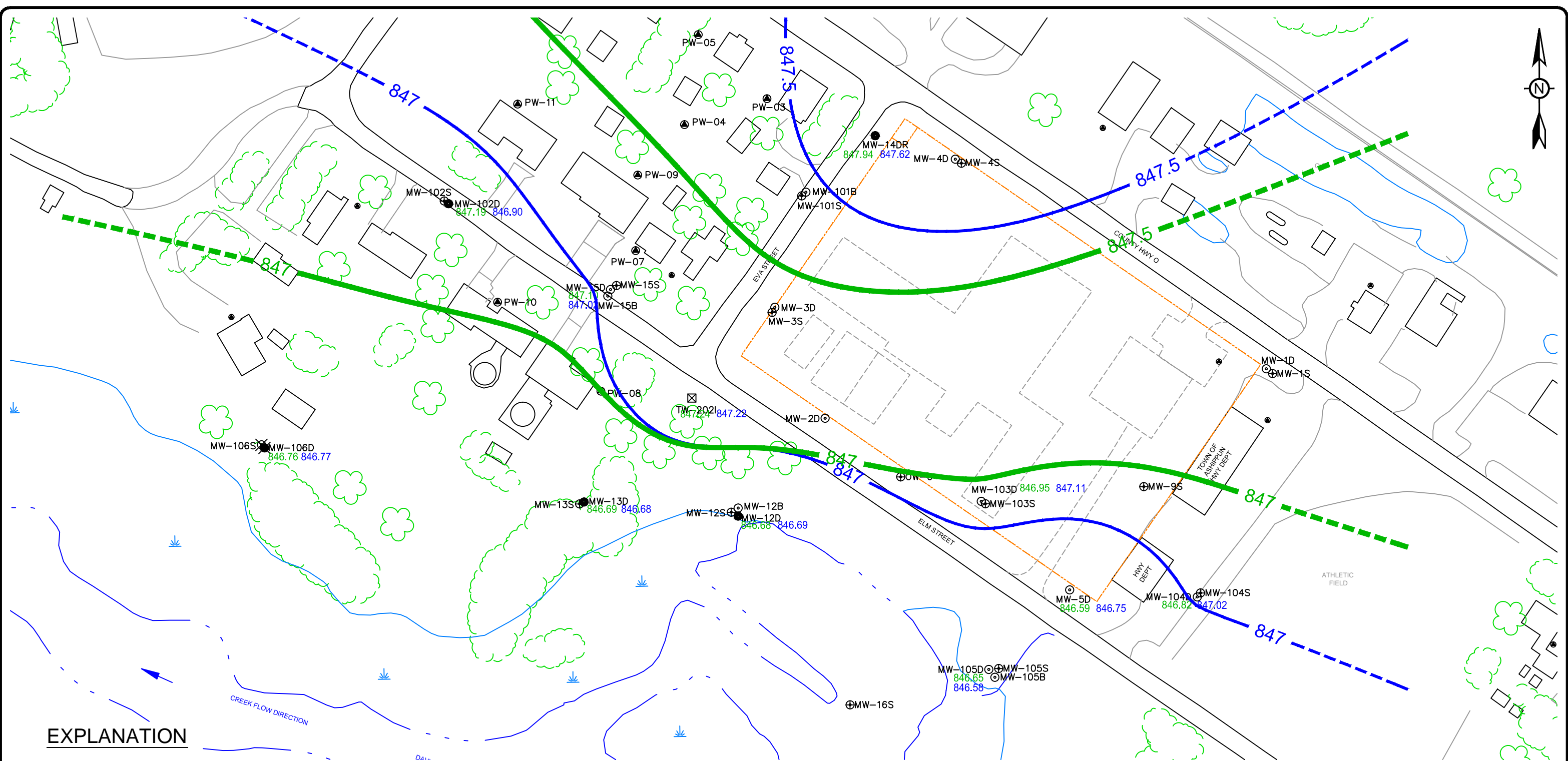
EXPLANATION

- ⊙MW-105B BEDROCK MONITORING WELL
- MW-105D DEEP UNCONSOLIDATED MONITORING WELL
- ⊕MW-105S SHALLOW UNCONSOLIDATED MONITORING WELL
- ⊙PW-11 RESIDENTIAL WELL
- ⊙MW-106D DEEP UNCONSOLIDATED SENTINEL WELL
- ⊙MW-106S SHALLOW UNCONSOLIDATED SENTINEL WELL
- ⊙TW-2021 TEMPORARY WELL
- FORMER OECI SITE BOUNDARY

- 846.21 OCT 2016 GROUNDWATER ELEVATION (FEET MSL)
- 845 --- OCT 2016 GROUNDWATER CONTOUR (FEET MSL)
DASHED WHERE INFERRED
- 846.21 MAY 2017 GROUNDWATER ELEVATION (FEET MSL)
- 845 --- MAY 2017 GROUNDWATER CONTOUR (FEET MSL)
DASHED WHERE INFERRED
- CONTOUR INTERVAL: 0.5 FEET
- DATUM: FEET ABOVE MEAN SEA LEVEL (MSL)



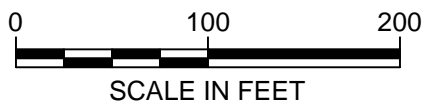
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	CHECKED	MAM
	DRAFTED	HJW
	PROJECT	117-7413001
DATE	7/5/17	FIGURE: 2



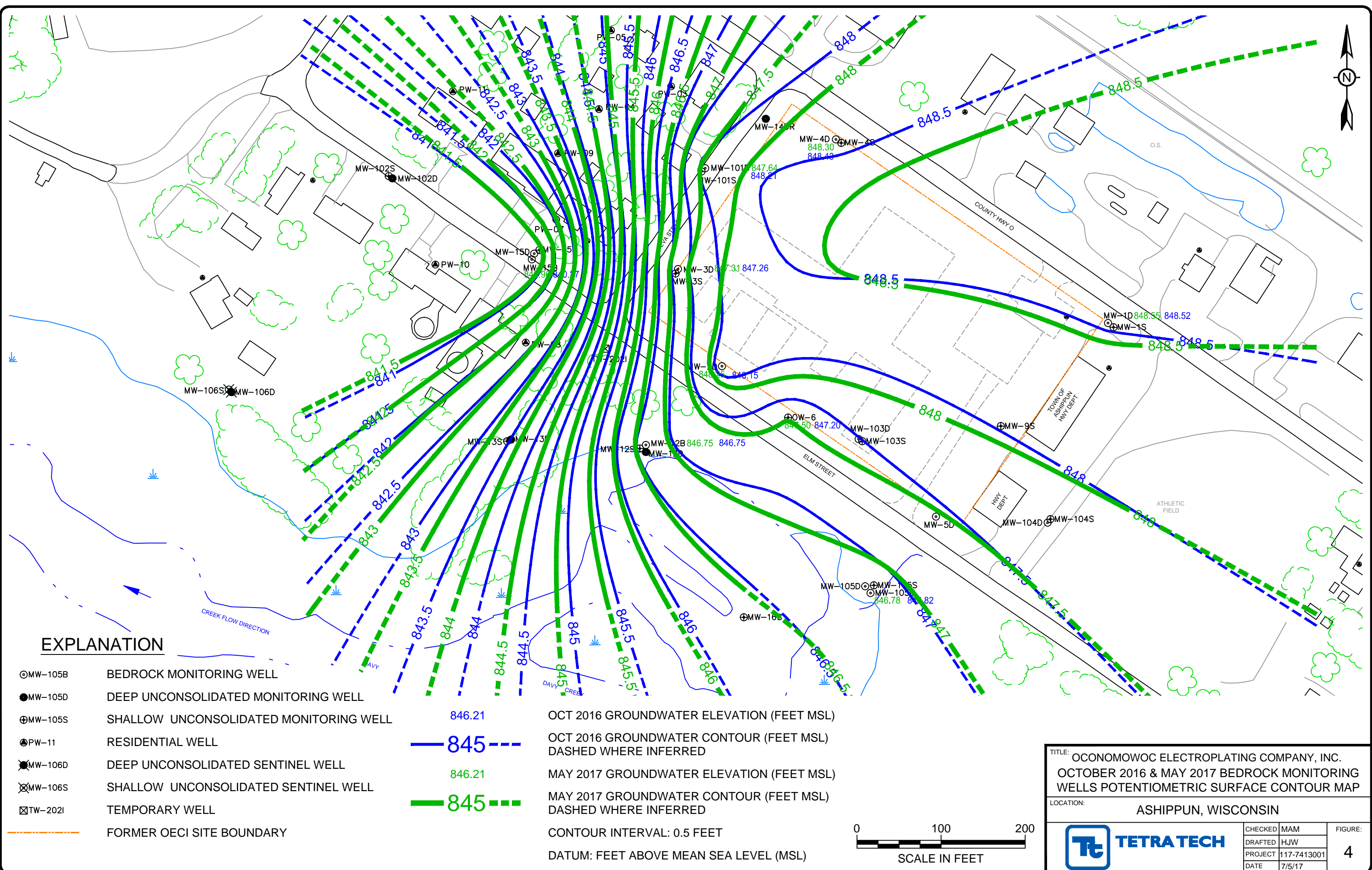
EXPLANATION

- ⊙MW-105B BEDROCK MONITORING WELL
- MW-105D DEEP UNCONSOLIDATED MONITORING WELL
- ⊕MW-105S SHALLOW UNCONSOLIDATED MONITORING WELL
- PW-11 RESIDENTIAL WELL
- ⊙MW-106D DEEP UNCONSOLIDATED SENTINEL WELL
- ⊙MW-106S SHALLOW UNCONSOLIDATED SENTINEL WELL
- ⊙TW-2021 TEMPORARY WELL
- FORMER OECI SITE BOUNDARY

- 846.21 OCT 2016 GROUNDWATER ELEVATION (FEET MSL)
- 845 --- OCT 2016 GROUNDWATER CONTOUR (FEET MSL)
DASHED WHERE INFERRED
- 846.21 MAY 2017 GROUNDWATER ELEVATION (FEET MSL)
- 845 --- MAY 2017 GROUNDWATER CONTOUR (FEET MSL)
DASHED WHERE INFERRED
- CONTOUR INTERVAL: 0.5 FEET
- DATUM: FEET ABOVE MEAN SEA LEVEL (MSL)



TITLE: OCONOMOWOC ELECTROPLATING COMPANY, INC. OCTOBER 2016 & MAY 2017 MID-DEPTH MONITORING WELLS POTENTIOMETRIC SURFACE CONTOUR MAP		
LOCATION: ASHIPGUN, WISCONSIN		
	CHECKED	MAM
	DRAFTED	HJW
	PROJECT	117-7413001
DATE	7/5/17	FIGURE: 3



EXPLANATION

- ⊙MW-105B BEDROCK MONITORING WELL
- MW-105D DEEP UNCONSOLIDATED MONITORING WELL
- ⊕MW-105S SHALLOW UNCONSOLIDATED MONITORING WELL
- ⊙PW-11 RESIDENTIAL WELL
- ⊗MW-106D DEEP UNCONSOLIDATED SENTINEL WELL
- ⊗MW-106S SHALLOW UNCONSOLIDATED SENTINEL WELL
- ⊗TW-2021 TEMPORARY WELL
- FORMER OECI SITE BOUNDARY

846.21 OCT 2016 GROUNDWATER ELEVATION (FEET MSL)

845 --- OCT 2016 GROUNDWATER CONTOUR (FEET MSL)
DASHED WHERE INFERRED

846.21 MAY 2017 GROUNDWATER ELEVATION (FEET MSL)

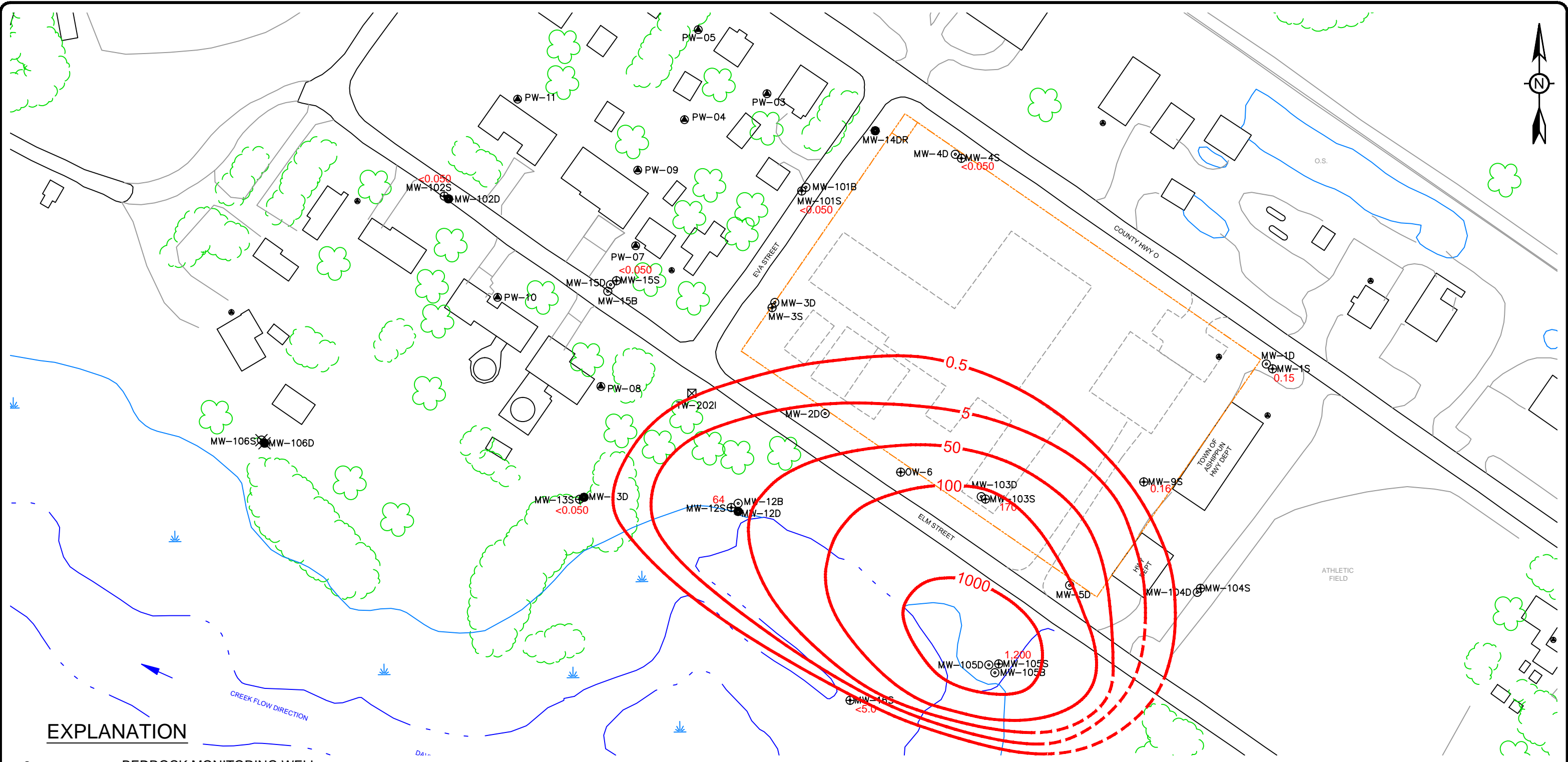
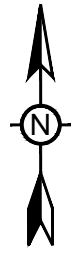
845 --- MAY 2017 GROUNDWATER CONTOUR (FEET MSL)
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CONTOUR INTERVAL: 0.5 FEET

DATUM: FEET ABOVE MEAN SEA LEVEL (MSL)



TITLE: OCONOMOWOC ELECTROPLATING COMPANY, INC. OCTOBER 2016 & MAY 2017 BEDROCK MONITORING WELLS POTENTIOMETRIC SURFACE CONTOUR MAP		
LOCATION: ASHIPGUN, WISCONSIN		
	CHECKED: MAM	FIGURE:
	DRAFTED: HJW	4
	PROJECT: 117-7413001	
DATE: 7/5/17		



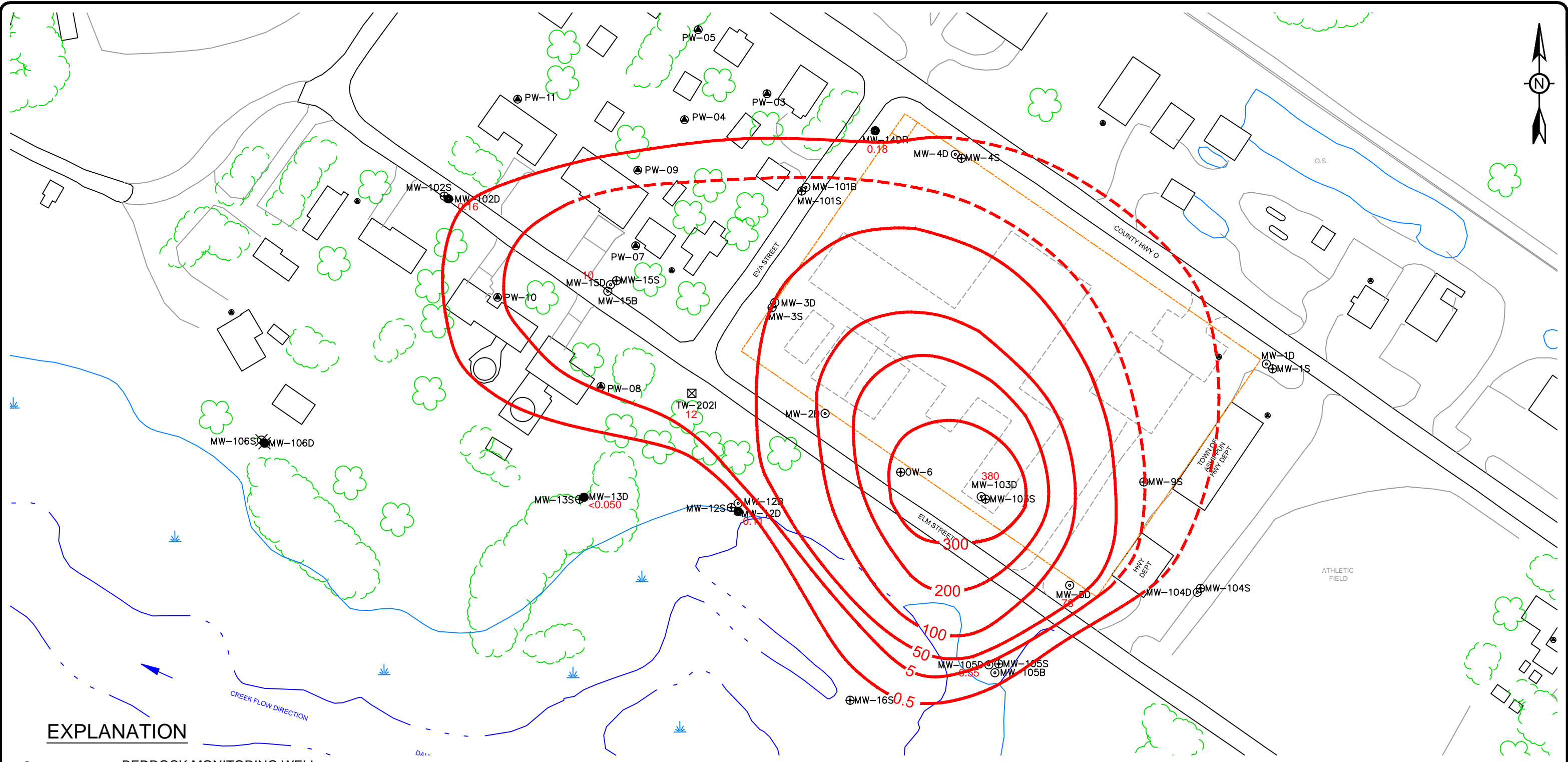
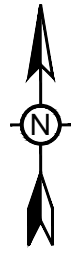
EXPLANATION

- ⊙MW-105B BEDROCK MONITORING WELL
- MW-105D DEEP UNCONSOLIDATED MONITORING WELL
- ⊕MW-105S SHALLOW UNCONSOLIDATED MONITORING WELL
- PW-11 RESIDENTIAL WELL
- ⊗MW-106D DEEP UNCONSOLIDATED SENTINEL WELL
- ⊗MW-106S SHALLOW UNCONSOLIDATED SENTINEL WELL
- ⊠TW-2021 TEMPORARY WELL
- FORMER OECI SITE BOUNDARY

64 TCE CONCENTRATION (ug/L)
 50 TCE ISOCONCENTRATION CONTOUR (ug/L)
 DASHED WHERE INFERRED



TITLE: OCONOMOWOC ELECTROPLATING COMPANY, INC. MAY 2017 SAMPLING EVENT SHALLOW-DEPTH MONITORING WELLS TCE ISOCONCENTRATION MAP			
LOCATION:		ASHIPPUN, WISCONSIN	
	CHECKED	MAM	FIGURE: 5
	DRAFTED	HJW	
	PROJECT	117-7413001	
DATE	6/26/17		



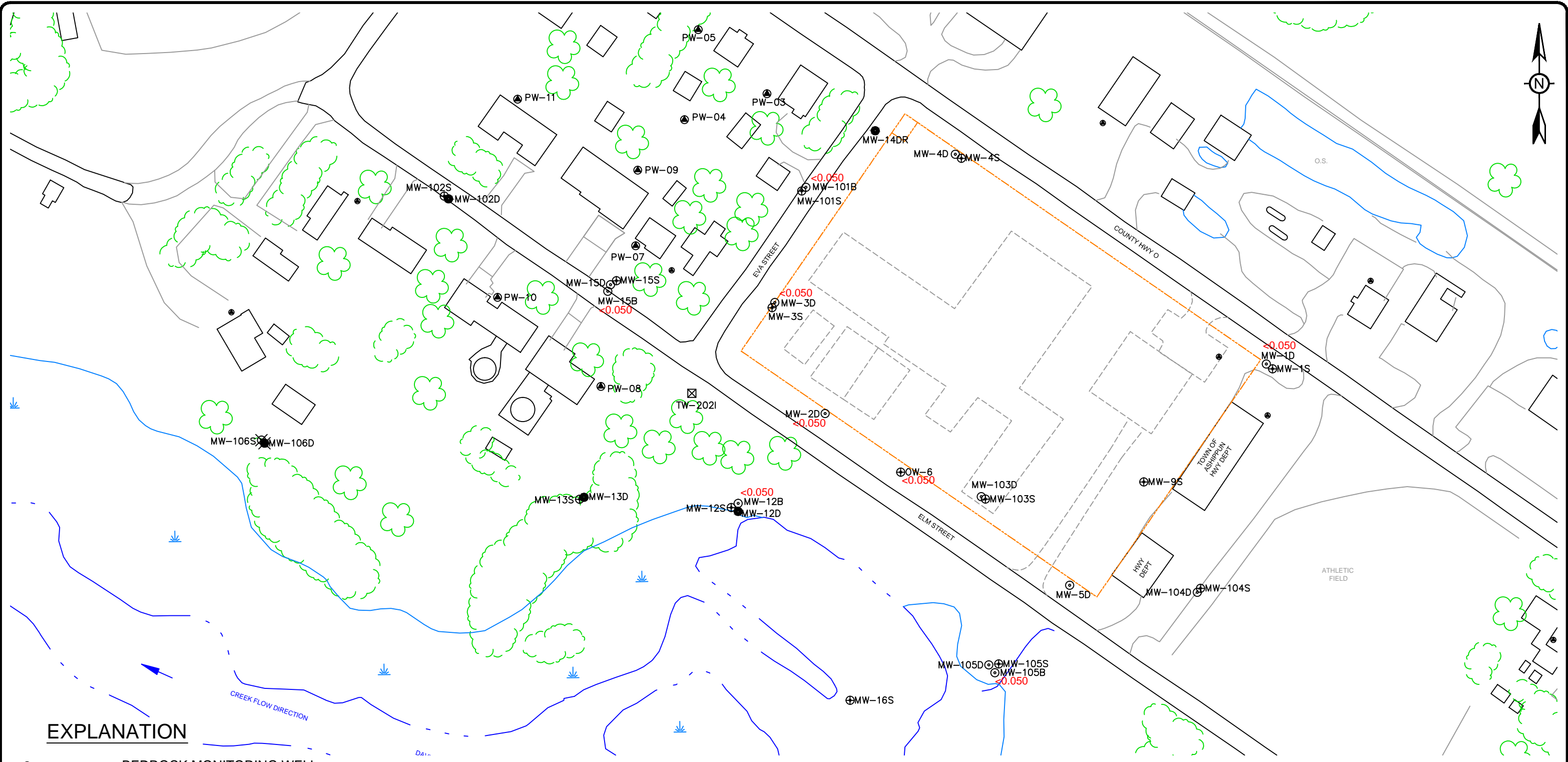
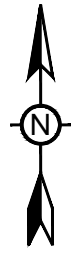
EXPLANATION

- ⊙MW-105B BEDROCK MONITORING WELL
- MW-105D DEEP UNCONSOLIDATED MONITORING WELL
- ⊕MW-105S SHALLOW UNCONSOLIDATED MONITORING WELL
- PW-11 RESIDENTIAL WELL
- ⊗MW-106D DEEP UNCONSOLIDATED SENTINEL WELL
- ⊗MW-106S SHALLOW UNCONSOLIDATED SENTINEL WELL
- ⊠TW-202I TEMPORARY WELL
- - - - - FORMER OECI SITE BOUNDARY

78
 50
 TCE CONCENTRATION (ug/L)
 TCE ISOCONCENTRATION CONTOUR (ug/L)
 DASHED WHERE INFERRED



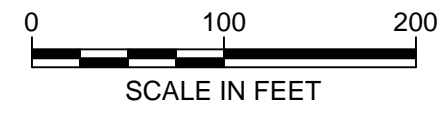
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LOCATION: ASHIPUN, WISCONSIN			
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	DRAFTED	HJW	
	PROJECT	117-7413001	
	DATE	6/26/17	



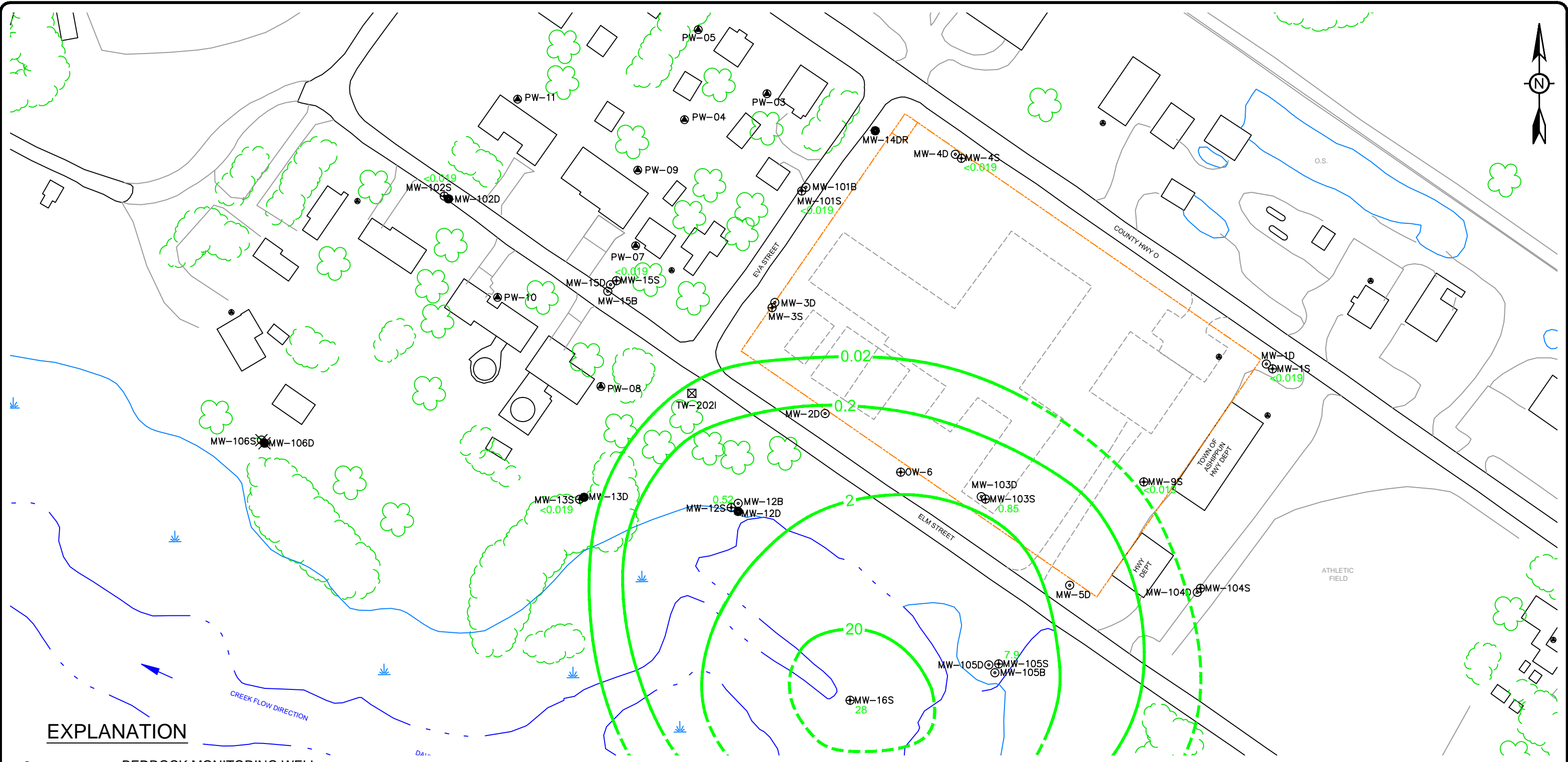
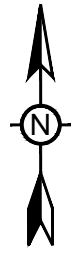
EXPLANATION

- ⊙MW-105B BEDROCK MONITORING WELL
- MW-105D DEEP UNCONSOLIDATED MONITORING WELL
- ⊕MW-105S SHALLOW UNCONSOLIDATED MONITORING WELL
- PW-11 RESIDENTIAL WELL
- ⊗MW-106D DEEP UNCONSOLIDATED SENTINEL WELL
- ⊗MW-106S SHALLOW UNCONSOLIDATED SENTINEL WELL
- ⊠TW-2021 TEMPORARY WELL
- FORMER OECI SITE BOUNDARY

<math><0.050</math> TCE CONCENTRATION (ug/L)
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 DASHED WHERE INFERRED



TITLE: OCONOMOWOC ELECTROPLATING COMPANY, INC. MAY 2017 SAMPLING EVENT BEDROCK MONITORING WELLS TCE ISOCONCENTRATION MAP										
LOCATION: ASHIPUN, WISCONSIN										
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PROJECT	117-7413001									
DATE	6/26/17									



EXPLANATION

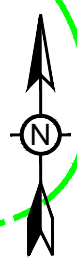
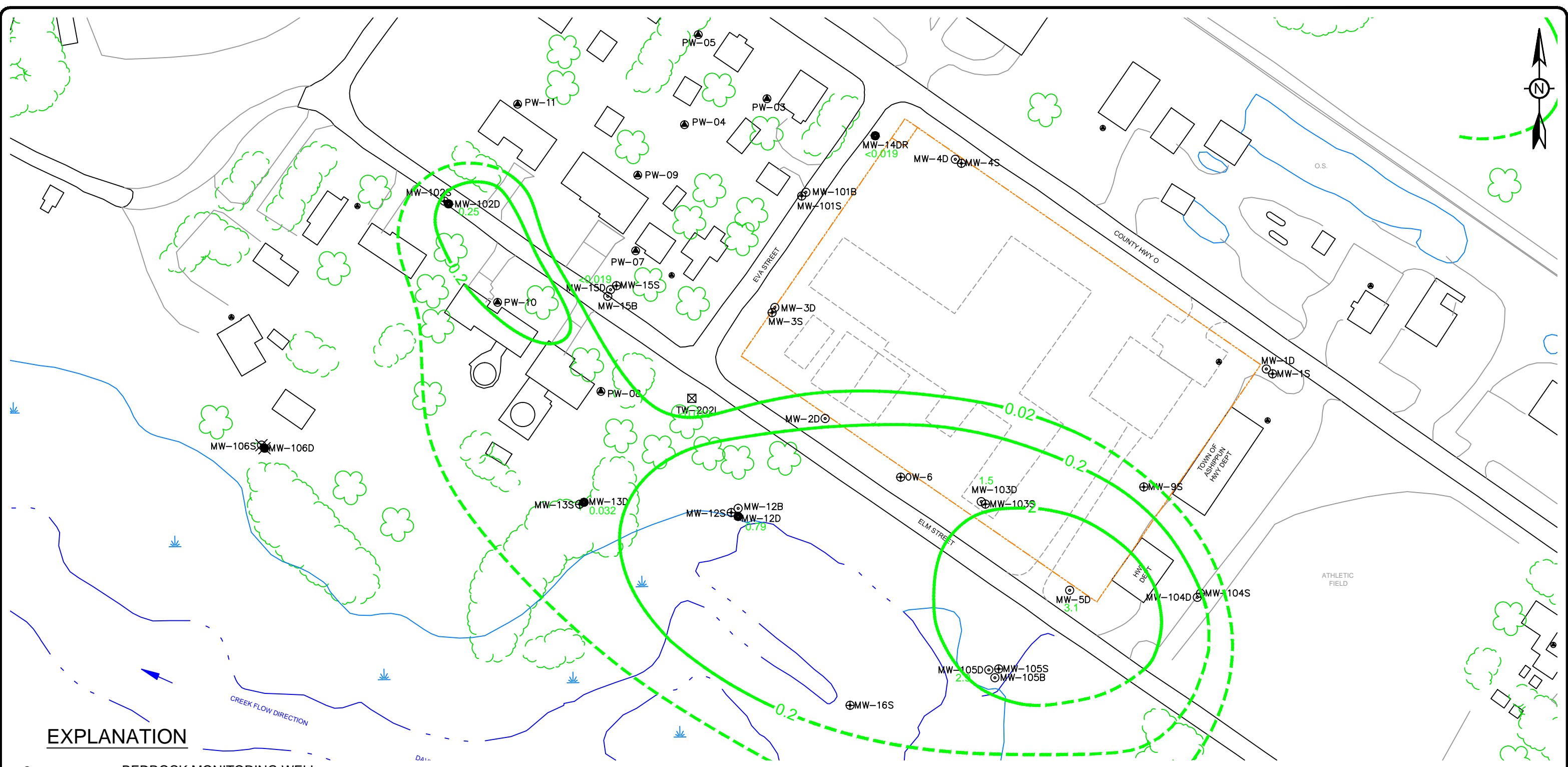
- ⊙MW-105B BEDROCK MONITORING WELL
- MW-105D DEEP UNCONSOLIDATED MONITORING WELL
- ⊕MW-105S SHALLOW UNCONSOLIDATED MONITORING WELL
- PW-11 RESIDENTIAL WELL
- ⊗MW-106D DEEP UNCONSOLIDATED SENTINEL WELL
- ⊗MW-106S SHALLOW UNCONSOLIDATED SENTINEL WELL
- ⊠TW-2021 TEMPORARY WELL
- FORMER OECI SITE BOUNDARY

28
2.0

VINYL CHLORIDE CONCENTRATION (ug/L)
 VINYL CHLORIDE ISOCONCENTRATION CONTOUR (ug/L)
 DASHED WHERE INFERRED



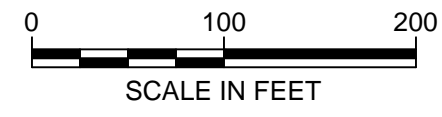
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LOCATION: ASHIPUN, WISCONSIN			
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	DRAFTED	HJW	
	PROJECT	117-7413001	
DATE	6/26/17		



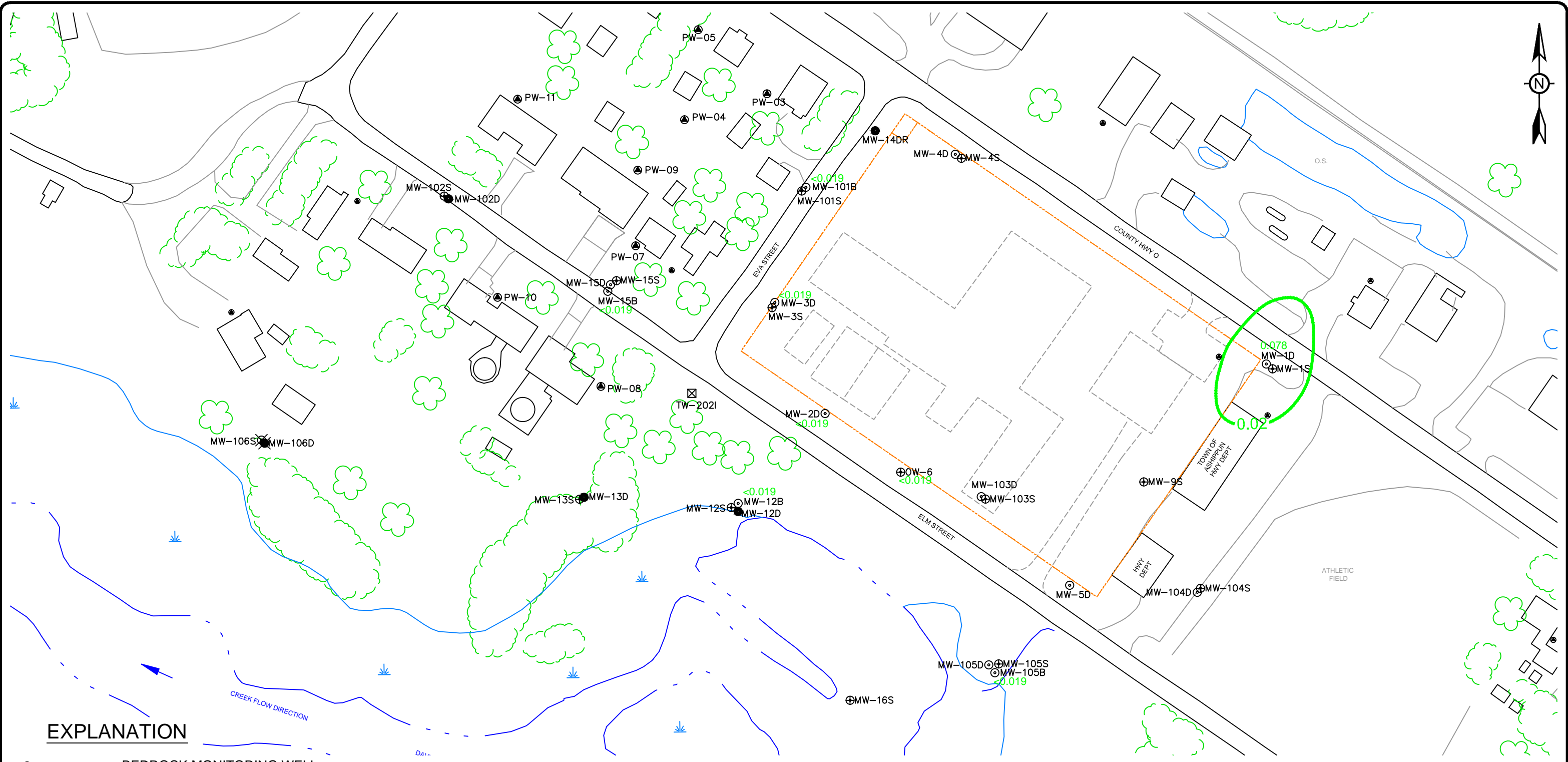
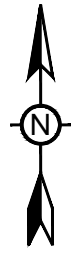
EXPLANATION

- ⊙MW-105B BEDROCK MONITORING WELL
- MW-105D DEEP UNCONSOLIDATED MONITORING WELL
- ⊕MW-105S SHALLOW UNCONSOLIDATED MONITORING WELL
- PW-11 RESIDENTIAL WELL
- ⊗MW-106D DEEP UNCONSOLIDATED SENTINEL WELL
- ⊗MW-106S SHALLOW UNCONSOLIDATED SENTINEL WELL
- ⊠TW-2021 TEMPORARY WELL
- FORMER OECI SITE BOUNDARY

3.1
 ——— 2.0 ———
 VINYL CHLORIDE CONCENTRATION (ug/L)
 VINYL CHLORIDE ISOCONCENTRATION CONTOUR (ug/L)
 DASHED WHERE INFERRED



TITLE: OCONOMOWOC ELECTROPLATING COMPANY, INC. MAY 2017 SAMPLING EVENT MID-DEPTH MONITORING WELLS VINYL CHLORIDE ISOCONCENTRATION MAP		
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	PROJECT	117-7413001
DATE	6/26/17	FIGURE: 9

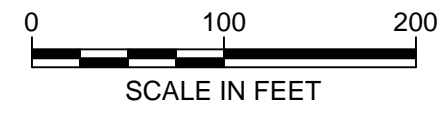


EXPLANATION

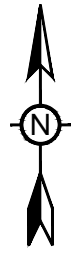
- ⊙MW-105B BEDROCK MONITORING WELL
- MW-105D DEEP UNCONSOLIDATED MONITORING WELL
- ⊕MW-105S SHALLOW UNCONSOLIDATED MONITORING WELL
- PW-11 RESIDENTIAL WELL
- ⊗MW-106D DEEP UNCONSOLIDATED SENTINEL WELL
- ⊗MW-106S SHALLOW UNCONSOLIDATED SENTINEL WELL
- ⊠TW-202I TEMPORARY WELL
- FORMER OECI SITE BOUNDARY

0.078 VINYL CHLORIDE CONCENTRATION (ug/L)

— 0.04 — VINYL CHLORIDE ISOCONCENTRATION CONTOUR (ug/L)
 DASHED WHERE INFERRED



TITLE: OCONOMOWOC ELECTROPLATING COMPANY, INC. MAY 2017 SAMPLING EVENT BEDROCK MONITORING WELLS VINYL CHLORIDE ISOCONCENTRATION MAP		
LOCATION: ASHIPUN, WISCONSIN		
	CHECKED	MAM
	DRAFTED	HJW
	PROJECT	117-7413001
DATE	6/26/17	FIGURE: 10



Parameter	MW-102S
DO	1.91
ORP	164
Alkalinity, total	460
Chloride	710
Iron, dissolved	<0.059
Manganese, dissolved	<2.2
Acetylene	<0.23
Ethane	<0.40
Ethene	<0.50
Methane	5.6
Sulfate	30
Total Organic Carbon	3.8

Parameter	MW-4S
DO	0.49
ORP	246
Alkalinity, total	600
Chloride	150
Iron, dissolved	0.146
Manganese, dissolved	149
Acetylene	<0.23
Ethane	<0.40
Ethene	<0.50
Methane	3.1
Sulfate	69
Total Organic Carbon	7.7

Parameter	MW-101S
DO	12.90
ORP	223
Alkalinity, total	310
Chloride	300
Iron, dissolved	0.281
Manganese, dissolved	<2.2
Acetylene	<0.23
Ethane	<0.40
Ethene	<0.50
Methane	<0.40
Sulfate	21
Total Organic Carbon	<0.50

Parameter	MW-15S
DO	5.88
ORP	214
Alkalinity, total	310
Chloride	25
Iron, dissolved	<0.059
Manganese, dissolved	<2.2
Acetylene	<0.23
Ethane	<0.40
Ethene	<0.50
Methane	<0.40
Sulfate	6.8
Total Organic Carbon	2.9

Parameter	MW-1S
DO	3.30
ORP	-43
Alkalinity, total	370
Chloride	150
Iron, dissolved	0.945
Manganese, dissolved	70.8
Acetylene	<0.23
Ethane	<0.40
Ethene	<0.50
Methane	2.1
Sulfate	50
Total Organic Carbon	2.6

Parameter	MW-13S
DO	4.41
ORP	203
Alkalinity, total	350
Chloride	150
Iron, dissolved	0.128
Manganese, dissolved	<2.2
Acetylene	<0.23
Ethane	<0.40
Ethene	<0.50
Methane	<0.40
Sulfate	23
Total Organic Carbon	2.6

Parameter	MW-12S
DO	1.05
ORP	55
Alkalinity, total	410
Chloride	210
Iron, dissolved	<0.059
Manganese, dissolved	67.1
Acetylene	<0.23
Ethane	<0.40
Ethene	<0.50
Methane	1.2
Sulfate	49
Total Organic Carbon	3

Parameter	MW-103S
DO	2.10
ORP	132
Alkalinity, total	520
Chloride	31
Iron, dissolved	<0.059
Manganese, dissolved	547
Acetylene	<0.23
Ethane	<0.40
Ethene	<0.50
Methane	5.2
Sulfate	67
Total Organic Carbon	8.5

Parameter	MW-9S
DO	0.01
ORP	-36
Alkalinity, total	380
Chloride	210
Iron, dissolved	0.8
Manganese, dissolved	123
Acetylene	<0.23
Ethane	<0.40
Ethene	<0.50
Methane	2.2
Sulfate	52
Total Organic Carbon	3.2

Parameter	MW-16S
DO	0.05
ORP	-123
Alkalinity, total	710
Chloride	210
Iron, dissolved	5.15
Manganese, dissolved	46.5
Acetylene	<0.23
Ethane	<0.40
Ethene	<0.50
Methane	1.9
Sulfate	670
Total Organic Carbon	6.1

Parameter	MW-105S
DO	0.00
ORP	-50
Alkalinity, total	430
Chloride	200
Iron, dissolved	1.45
Manganese, dissolved	163
Acetylene	<0.23
Ethane	<0.40
Ethene	<0.50
Methane	9.7
Sulfate	52
Total Organic Carbon	3.1

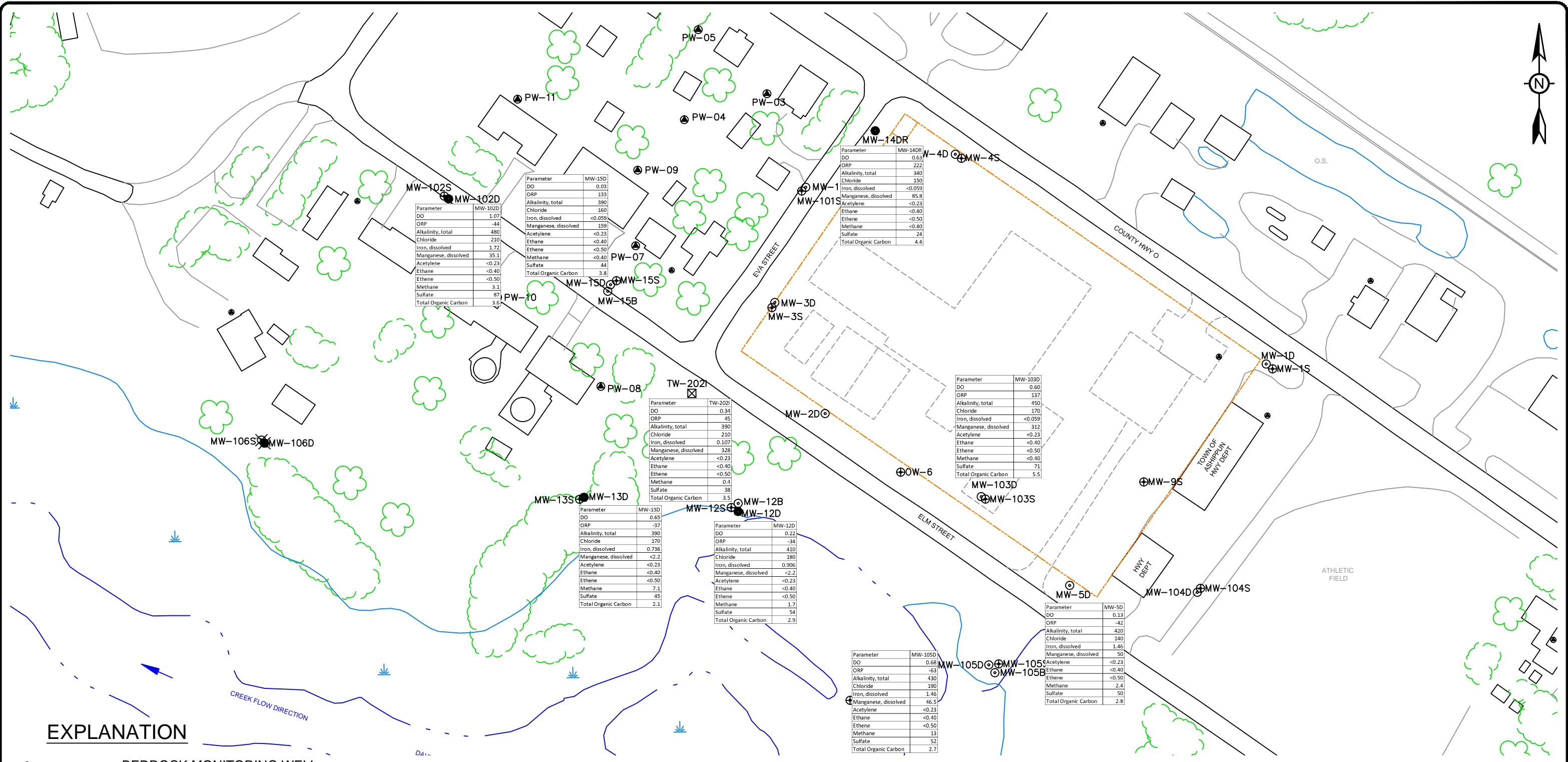
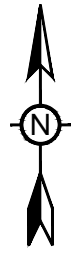
EXPLANATION

- ⊙MW-105B BEDROCK MONITORING WELL
- MW-105D DEEP UNCONSOLIDATED MONITORING WELL
- ⊕MW-105S SHALLOW UNCONSOLIDATED MONITORING WELL
- PW-11 RESIDENTIAL WELL
- ⊗MW-106D DEEP UNCONSOLIDATED SENTINEL WELL
- ⊗MW-106S SHALLOW UNCONSOLIDATED SENTINEL WELL
- ⊠TW-2021 TEMPORARY WELL
- FORMER OECI SITE BOUNDARY

Parameter	Units
DO	mg/L
ORP	millivolts
Alkalinity, total	mg/L
Chloride	mg/L
Iron, dissolved	mg/L
Manganese, dissolved	µg/L
Acetylene	µg/L
Ethane	µg/L
Ethene	µg/L
Methane	µg/L
Sulfate	mg/L
Total Organic Carbon	mg/L



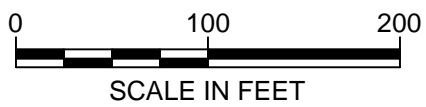
TITLE: OCONOMOWOC ELECTROPLATING COMPANY, INC. MAY 2017 SAMPLING EVENT SHALLOW-DEPTH MONITORING WELLS MONITORED NATURAL ATTENUATION PARAMETER RESULTS			
LOCATION: ASHIPPUN, WISCONSIN			
	CHECKED	MAM	FIGURE: 11
	DRAFTED	HJW	
	PROJECT	117-7413001	
DATE	6/28/17		



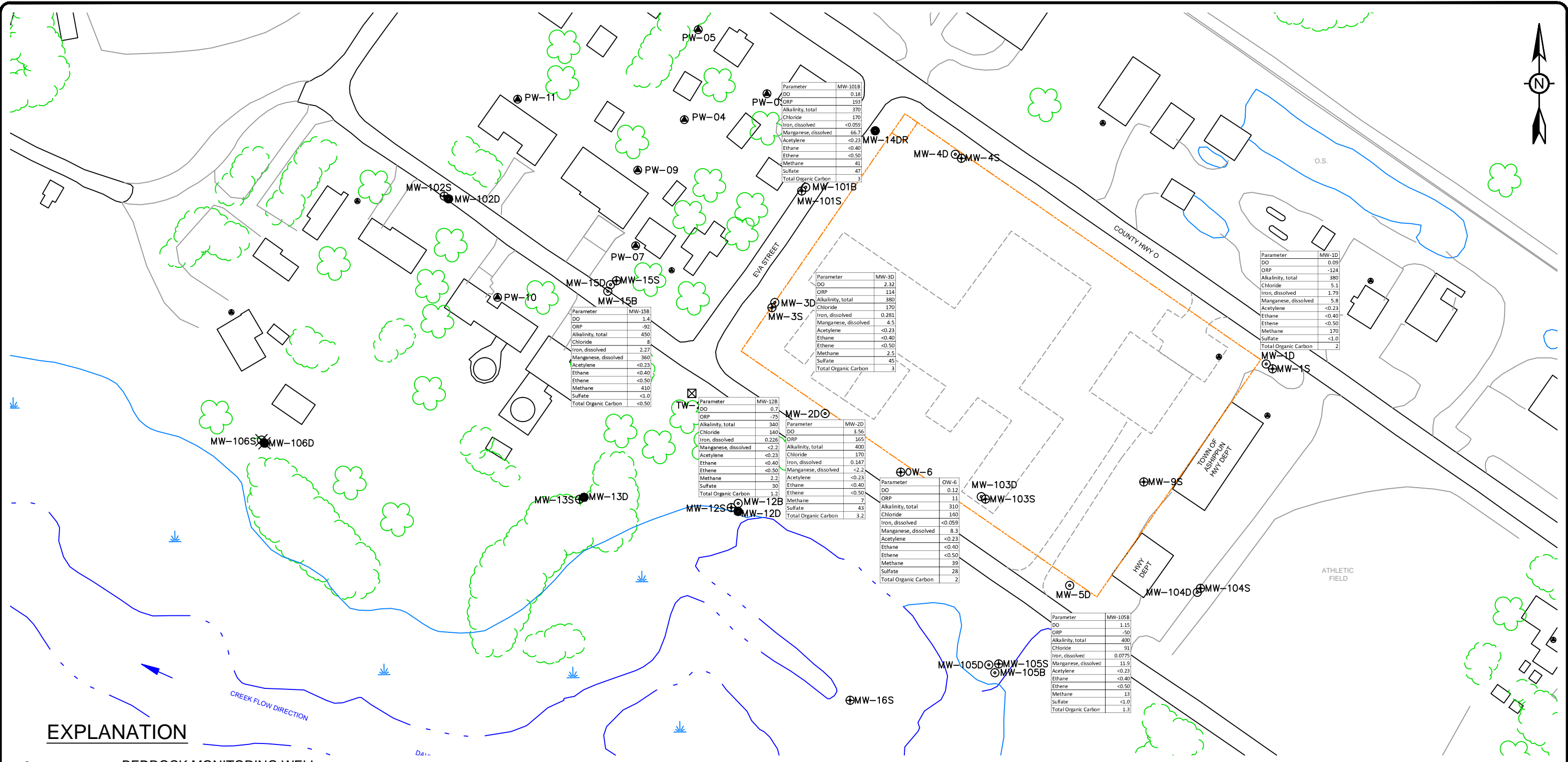
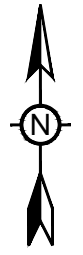
EXPLANATION

- ⊙MW-105B BEDROCK MONITORING WELL
- MW-105D DEEP UNCONSOLIDATED MONITORING WELL
- ⊕MW-105S SHALLOW UNCONSOLIDATED MONITORING WELL
- PW-11 RESIDENTIAL WELL
- ⊗MW-106D DEEP UNCONSOLIDATED SENTINEL WELL
- ⊗MW-106S SHALLOW UNCONSOLIDATED SENTINEL WELL
- ⊠TW-2021 TEMPORARY WELL
- FORMER OECI SITE BOUNDARY

Parameter	Units
DO	mg/L
ORP	millivolts
Alkalinity, total	mg/L
Chloride	mg/L
Iron, dissolved	mg/L
Manganese, dissolved	µg/L
Acetylene	µg/L
Ethane	µg/L
Ethene	µg/L
Methane	µg/L
Sulfate	mg/L
Total Organic Carbon	mg/L



TITLE: OCONOMOWOC ELECTROPLATING COMPANY, INC. MAY 2017 SAMPLING EVENT MID-DEPTH MONITORING WELLS MONITORED NATURAL ATTENUATION PARAMETER RESULTS			
LOCATION: ASHIPPUN, WISCONSIN		FIGURE: 12	
	CHECKED	MAM	
	DRAFTED	HJW	
	PROJECT	117-7413001	
DATE	6/28/17		



EXPLANATION

- ⊙MW-105B BEDROCK MONITORING WELL
- MW-105D DEEP UNCONSOLIDATED MONITORING WELL
- ⊕MW-105S SHALLOW UNCONSOLIDATED MONITORING WELL
- PW-11 RESIDENTIAL WELL
- ⊙MW-106D DEEP UNCONSOLIDATED SENTINEL WELL
- ⊙MW-106S SHALLOW UNCONSOLIDATED SENTINEL WELL
- ⊗TW-202I TEMPORARY WELL
- FORMER OEI SITE BOUNDARY



TITLE: OCONOMOWOC ELECTROPLATING COMPANY, INC.
MAY 2017 SAMPLING EVENT BEDROCK MONITORING WELLS
MONITORED NATURAL ATTENUATION PARAMETER RESULTS

LOCATION: ASHIPUN, WISCONSIN

	CHECKED	MAM	FIGURE: 13
	DRAFTED	HJW	
	PROJECT	117-7413001	
	DATE	6/28/17	

TABLES

Table 1. Water Level Data, Oconomowoc Electroplating Company Inc. (OECI) Superfund Site Monitoring Wells

Well ID	Type	Reference TOC Elevation	Screen Length	Date Measured	Depth to Groundwater (from TOC)	Groundwater Elevation	Depth to Bottom of Well (from TOC)	Height of Water Column in Well
		ft MSL	ft		ft btoc	ft MSL	ft btoc	feet
MW-1S	WT	853.42	10.	12/10/2014	6.68	846.74	17.59	10.91
MW-1S	WT	853.42	10.	5/4/2015	5.39	848.03	17.59	12.2
MW-1S	WT	853.42	10.	11/2/2015	6.57	846.85	17.59	11.02
MW-1S	WT	853.42	10.	5/9/2016	5.57	847.85	17.59	12.02
MW-1S	WT	853.42	10.	10/31/2016	4.74	848.68	17.59	12.85
MW-1S	WT	853.42	10.	5/8/2017	4.92	848.50	17.59	12.67
MW-1D	BR	853.14	10.	12/10/2014	7.07	846.07	50.72	43.65
MW-1D	BR	853.14	10.	5/4/2015	5.32	847.82	50.72	45.4
MW-1D	BR	853.14	10.	11/2/2015	6.94	846.20	50.72	43.78
MW-1D	BR	853.14	10.	5/9/2016	5.07	848.07	50.72	45.65
MW-1D	BR	853.14	10.	10/31/2016	4.62	848.52	50.72	46.1
MW-1D	BR	853.14	10.	5/8/2017	4.59	848.55	50.72	46.13
MW-2D	BR	852.36	10.	12/11/2014	5.94	846.42	43.48	37.54
MW-2D	BR	852.36	10.	5/4/2015	4.90	847.46	43.48	38.58
MW-2D	BR	852.36	10.	11/2/2015	6.02	846.34	43.48	37.46
MW-2D	BR	852.36	10.	5/9/2016	5.03	847.33	43.48	38.45
MW-2D	BR	852.36	10.	10/31/2016	4.21	848.15	43.48	39.27
MW-2D	BR	852.36	10.	5/8/2017	4.11	848.25	43.48	39.37
MW-3D	BR	853.51	10.	12/10/2014	7.56	845.95	50.56	43
MW-3D	BR	853.51	10.	5/4/2015	5.98	847.53	50.56	44.58
MW-3D	BR	853.51	10.	11/2/2015	8.12	845.39	50.56	42.44
MW-3D	BR	853.51	10.	5/9/2016	7.21	846.30	50.56	43.35
MW-3D	BR	853.51	10.	10/31/2016	6.25	847.26	50.56	44.31
MW-3D	BR	853.51	10.	5/8/2017	6.20	847.31	50.56	44.36
MW-4S	WT	854.58	10.	12/11/2014	8.37	846.21	18.09	9.72
MW-4S	WT	854.58	10.	5/4/2015	6.62	847.96	18.09	11.47
MW-4S	WT	854.58	10.	11/2/2015	8.28	846.30	18.09	9.81
MW-4S	WT	854.58	10.	5/9/2016	6.71	847.87	18.09	11.38
MW-4S	WT	854.58	10.	10/31/2016	5.88	848.70	18.09	12.21
MW-4S	WT	854.58	10.	5/8/2017	5.98	848.60	18.09	12.11
MW-4D	BR	854.63	10.	5/4/2015	7.41	847.22		
MW-4D	BR	854.63	10.	11/2/2015	8.74	845.89		
MW-4D	BR	854.63	10.	5/9/2016	7.37	847.26		
MW-4D	BR	854.63	10.	10/31/2016	6.20	848.43		
MW-4D	BR	854.63	10.	5/8/2017	6.33	848.30		
MW-5D	Pz	848.80	5.	12/10/2014	3.95	844.85	24.45	20.5
MW-5D	Pz	848.80	5.	5/4/2015	2.52	846.28	24.45	21.93
MW-5D	Pz	848.80	5.	11/2/2015	3.26	845.54	24.45	21.19
MW-5D	Pz	848.80	5.	5/9/2016	3.72	845.08	24.45	20.73
MW-5D	Pz	848.80	5.	10/31/2016	2.05	846.75	24.45	22.4
MW-5D	Pz	848.80	5.	5/8/2017	2.21	846.59	24.45	22.24
MW-9S	WT	851.57	10.	12/10/2014	5.53	846.04	22.33	16.8
MW-9S	WT	851.57	10.	5/4/2015	4.50	847.07	22.33	17.83
MW-9S	WT	851.57	10.	11/2/2015	5.28	846.29	22.33	17.05

Table 1. Water Level Data, Oconomowoc Electroplating Company Inc. (OECI) Superfund Site Monitoring Wells

Well ID	Type	Reference TOC Elevation	Screen Length	Date Measured	Depth to Groundwater (from TOC)	Groundwater Elevation	Depth to Bottom of Well (from TOC)	Height of Water Column in Well
		ft MSL	ft		ft btoc	ft MSL	ft btoc	feet
MW-9S	WT	851.57	10.	5/9/2016	4.77	846.80	22.33	17.56
MW-9S	WT	851.57	10.	10/31/2016	4.08	847.49	22.33	18.25
MW-9S	WT	851.57	10.	5/8/2017	4.17	847.40	22.33	18.16
MW-12S	WT	849.17	10.	12/11/2014	4.24	844.93	14.89	10.65
MW-12S	WT	849.17	10.	5/4/2015	3.79	845.38	14.89	11.1
MW-12S	WT	849.17	10.	11/2/2015	4.34	844.83	14.89	10.55
MW-12S	WT	849.17	10.	5/9/2016	4.00	845.17	14.89	10.89
MW-12S	WT	849.17	10.	10/31/2016	3.22	845.95	14.89	11.67
MW-12S	WT	849.17	10.	5/8/2017	3.42	845.75	14.89	11.47
MW-12D	Pz	848.31	5.	12/11/2014	2.96	845.35	25.11	22.15
MW-12D	Pz	848.31	5.	5/4/2015	2.19	846.12	25.11	22.92
MW-12D	Pz	848.31	5.	11/2/2015	4.06	844.25	25.11	21.05
MW-12D	Pz	848.31	5.	5/9/2016	2.44	845.87	25.11	22.67
MW-12D	Pz	848.31	5.	10/31/2016	1.62	846.69	25.11	23.49
MW-12D	Pz	848.31	5.	5/8/2017	1.63	846.68	25.11	23.48
MW-12B	BR	849.40	5.	12/11/2014	4.15	845.25	44.55	40.4
MW-12B	BR	849.40	5.	5/4/2015	3.19	846.21	44.55	41.36
MW-12B	BR	849.40	5.	11/2/2015	4.11	845.29	44.55	40.44
MW-12B	BR	849.40	5.	5/9/2016	3.37	846.03	44.55	41.18
MW-12B	BR	849.40	5.	10/31/2016	2.65	846.75	44.55	41.9
MW-12B	BR	849.40	5.	5/8/2017	2.65	846.75	44.55	41.9
MW-13S	WT	850.91	10.	12/11/2014	5.83	845.08	15.31	9.48
MW-13S	WT	850.91	10.	5/4/2015	4.98	845.93	15.31	10.33
MW-13S	WT	850.91	10.	11/2/2015	5.96	844.95	15.31	9.35
MW-13S	WT	850.91	10.	5/9/2016	5.16	845.75	15.31	10.15
MW-13S	WT	850.91	10.	10/31/2016	4.46	846.45	15.31	10.85
MW-13S	WT	850.91	10.	5/8/2017	4.45	846.46	15.31	10.86
MW-13D	Pz	850.02	5.	12/11/2014	4.84	845.18	31.94	27.1
MW-13D	Pz	850.02	5.	5/4/2015	3.92	846.10	31.94	28.02
MW-13D	Pz	850.02	5.	11/2/2015	4.82	845.20	31.94	27.12
MW-13D	Pz	850.02	5.	5/9/2016	4.20	845.82	31.94	27.74
MW-13D	Pz	850.02	5.	10/31/2016	3.34	846.68	31.94	28.6
MW-13D	Pz	850.02	5.	5/8/2017	3.33	846.69	31.94	28.61
MW-15S	WT	854.68	10.	12/8/2014	9.32	845.36	16.17	6.85
MW-15S	WT	854.68	10.	5/4/2015	7.96	846.72	16.17	8.21
MW-15S	WT	854.68	10.	11/2/2015	9.39	845.29	16.17	6.78
MW-15S	WT	854.68	10.	5/9/2016	8.11	846.57	16.17	8.06
MW-15S	WT	854.68	10.	10/31/2016	7.06	847.62	16.17	9.11
MW-15S	WT	854.68	10.	5/8/2017	6.93	847.75	16.17	9.24
MW-15D	Pz	855.30	10.	12/9/2014	9.91	845.39	39.19	29.28
MW-15D	Pz	855.30	10.	5/4/2015	8.90	846.40	39.19	30.29
MW-15D	Pz	855.30	10.	11/2/2015	9.99	845.31	39.19	29.2
MW-15D	Pz	855.30	10.	5/9/2016	9.40	845.90	39.19	29.79
MW-15D	Pz	855.30	10.	10/31/2016	8.28	847.02	39.19	30.91

Table 1. Water Level Data, Oconomowoc Electroplating Company Inc. (OECI) Superfund Site Monitoring Wells

Well ID	Type	Reference TOC Elevation	Screen Length	Date Measured	Depth to Groundwater (from TOC)	Groundwater Elevation	Depth to Bottom of Well (from TOC)	Height of Water Column in Well
		ft MSL	ft		ft btoc	ft MSL	ft btoc	feet
MW-15D	Pz	855.30	10.	5/8/2017	8.20	847.10	39.19	30.99
MW-15B	BR	854.35	5.	12/8/2014	10.46	843.89	57.06	46.6
MW-15B	BR	854.35	5.	5/4/2015	13.61	840.74	57.06	43.45
MW-16S	BR	847.90	10.	12/18/2014	0.94	846.96	14.42	13.484
MW-15B	BR	854.35	5.	11/2/2015	14.25	840.10	57.06	42.81
MW-15B	BR	854.35	5.	5/9/2016	12.97	841.38	57.06	44.09
MW-15B	BR	854.35	5.	10/31/2016	14.08	840.27	57.06	42.98
MW-15B	BR	854.35	5.	5/8/2017	13.39	840.96	57.06	43.67
MW-16S	WT	847.90	10.	5/4/2015	2.64	845.26	14.42	11.78
MW-16S	WT	847.90	10.	11/2/2015	3.08	844.82	14.42	11.34
MW-16S	WT	847.90	10.	5/9/2016	2.81	845.09	14.42	11.61
MW-16S	WT	847.90	10.	11/4/2016	2.19	845.71	14.42	12.23
MW-16S	WT	847.90	10.	5/12/2017	2.52	845.38	14.42	11.9
MW-101S	WT	851.24	10.	12/9/2014	5.29	845.95	12.41	7.12
MW-101S	WT	851.24	10.	5/4/2015	3.64	847.60	12.41	8.77
MW-101S	WT	851.24	10.	11/2/2015	5.32	845.92	12.41	7.09
MW-101S	WT	851.24	10.	5/9/2016	3.74	847.50	12.41	8.67
MW-101S	WT	851.24	10.	10/31/2016	2.88	848.36	12.41	9.53
MW-101S	WT	851.24	10.	5/8/2017	2.62	848.62	12.41	9.79
MW-101B	BR	851.08	5.	12/9/2014	5.46	845.62	48.75	43.29
MW-101B	BR	851.08	5.	5/4/2015	4.33	846.75	48.75	44.42
MW-101B	BR	851.08	5.	11/2/2015	5.52	845.56	48.75	43.23
MW-101B	BR	851.08	5.	5/9/2016	4.60	846.48	48.75	44.15
MW-101B	BR	851.08	5.	10/31/2016	2.87	848.21	48.75	45.88
MW-101B	BR	851.08	5.	5/8/2017	3.44	847.64	48.75	45.31
MW-102S	WT	853.65	10.	12/9/2014	7.41	846.24	15.56	8.15
MW-102S	WT	853.65	10.	5/4/2015	7.05	846.60	15.56	8.51
MW-102S	WT	853.65	10.	11/2/2015	8.58	845.07	15.56	6.98
MW-102S	WT	853.65	10.	5/9/2016	7.14	846.51	15.56	8.42
MW-102S	WT	853.65	10.	10/31/2016	6.02	847.63	15.56	9.54
MW-102S	WT	853.65	10.	5/8/2017	5.94	847.71	15.56	9.62
MW-102D	Pz	853.70	5.	12/9/2014	8.39	845.31	48.36	39.97
MW-102D	Pz	853.70	5.	5/4/2015	7.32	846.38	48.36	41.04
MW-102D	Pz	853.70	5.	11/2/2015	8.29	845.41	48.36	40.07
MW-102D	Pz	853.70	5.	5/9/2016	7.56	846.14	48.36	40.8
MW-102D	Pz	853.70	5.	10/31/2016	6.80	846.90	48.36	41.56
MW-102D	Pz	853.70	5.	5/8/2017	6.51	847.19	48.36	41.85
MW-103S	WT	851.84	10.	12/8/2014	6.37	845.47	16.57	10.2
MW-103S	WT	851.84	10.	5/4/2015	5.49	846.35	16.57	11.08
MW-103S	WT	851.84	10.	11/4/2015	6.62	845.22	16.57	9.95
MW-103S	WT	851.84	10.	5/9/2016	5.61	846.23	16.57	10.96
MW-103S	WT	851.84	10.	10/31/2016	4.97	846.87	16.57	11.6
MW-103S	WT	851.84	10.	5/8/2017	5.24	846.60	16.57	11.33
MW-103D	Pz	851.97	5.	12/17/2014	6.52	845.45	26.86	20.34

Table 1. Water Level Data, Oconomowoc Electroplating Company Inc. (OECI) Superfund Site Monitoring Wells

Well ID	Type	Reference TOC Elevation	Screen Length	Date Measured	Depth to Groundwater (from TOC)	Groundwater Elevation	Depth to Bottom of Well (from TOC)	Height of Water Column in Well
		ft MSL	ft		ft btoc	ft MSL	ft btoc	feet
MW-103D	Pz	851.97	5.	5/4/2015	5.45	846.52	26.86	21.41
MW-103D	Pz	851.97	5.	11/2/2015	6.29	845.68	26.86	20.57
MW-103D	Pz	851.97	5.	5/9/2016	5.65	846.32	26.86	21.21
MW-103D	Pz	851.97	5.	10/31/2016	4.86	847.11	26.86	22
MW-103D	Pz	851.97	5.	5/8/2017	5.02	846.95	26.86	21.84
MW-104S	WT	850.56	10.	5/4/2015	4.19	846.37	14.53	10.34
MW-104S	WT	850.56	10.	11/2/2015	4.59	845.97	14.53	9.94
MW-104S	WT	850.56	10.	5/9/2016	4.27	846.29	14.53	10.26
MW-104S	WT	850.56	10.	10/31/2016	3.67	846.89	14.53	10.86
MW-104S	WT	850.56	10.	5/8/2017	3.89	846.67	14.53	10.64
MW-104D	Pz	850.57	5.	5/4/2015	4.06	846.51	27.64	23.58
MW-104D	Pz	850.57	5.	11/2/2015	4.70	845.87	27.64	22.94
MW-104D	Pz	850.57	5.	5/9/2016	4.46	846.11	27.64	23.18
MW-104D	Pz	850.57	5.	10/31/2016	3.55	847.02	27.64	24.09
MW-104D	Pz	850.57	5.	5/8/2017	3.75	846.82	27.64	23.89
MW-105S	WT	849.01	10.	12/10/2014	4.03	844.98	15.58	11.55
MW-105S	WT	849.01	10.	5/4/2015	3.38	845.63	15.58	12.2
MW-105S	WT	849.01	10.	11/2/2015	3.82	845.19	15.58	11.76
MW-105S	WT	849.01	10.	5/9/2016	3.50	845.51	15.58	12.08
MW-105S	WT	849.01	10.	10/31/2016	2.99	846.02	15.58	12.59
MW-105S	WT	849.01	10.	5/8/2017	3.10	845.91	15.58	12.48
MW-105D	Pz	848.90	5.	12/10/2014	3.52	845.38	29.61	26.09
MW-105D	Pz	848.90	5.	5/4/2015	2.80	846.10	29.61	26.81
MW-105D	Pz	848.90	5.	11/2/2015	3.60	845.30	29.61	26.01
MW-105D	Pz	848.90	5.	5/9/2016	2.95	845.95	29.61	26.66
MW-105D	Pz	848.90	5.	10/31/2016	2.32	846.58	29.61	27.29
MW-105D	Pz	848.90	5.	5/8/2017	2.25	846.65	29.61	27.36
MW-105B	BR	848.90	5.	12/10/2014	2.82	846.08	47.13	44.31
MW-105B	BR	848.90	5.	5/4/2015	2.74	846.16	47.13	44.39
MW-105B	BR	848.90	5.	11/2/2015	3.84	845.06	47.13	43.29
MW-105B	BR	848.90	5.	5/9/2016	2.91	845.99	47.13	44.22
MW-105B	BR	848.90	5.	10/31/2016	2.08	846.82	47.13	45.05
MW-105B	BR	848.90	5.	5/8/2017	2.12	846.78	47.13	45.01
MW-106S	WT	848.92	10.	5/4/2015	3.81	845.11	17.31	13.5
MW-106S	WT	848.92	10.	11/2/2015	4.41	844.51	17.31	12.9
MW-106S	WT	848.92	10.	5/9/2016	4.19	844.73	17.31	13.12
MW-106S	WT	848.92	10.	10/31/2016	3.09	845.83	17.31	14.22
MW-106S	WT	848.92	10.	5/8/2017	3.30	845.62	17.31	14.01
MW-106D	Pz	849.01	5.	5/4/2015	2.85	846.16	56.72	53.87
MW-106D	Pz	849.01	5.	11/2/2015	3.71	845.30	56.72	53.01
MW-106D	Pz	849.01	5.	5/9/2016	3.12	845.89	56.72	53.6
MW-106D	Pz	849.01	5.	10/31/2016	2.24	846.77	56.72	54.48
MW-106D	Pz	849.01	5.	5/8/2017	2.25	846.76	56.72	54.47
TW-202I	Pz	851.13	5.	12/10/2014	5.95	845.18	20.98	15.03

Table 1. Water Level Data, Oconomowoc Electroplating Company Inc. (OECI) Superfund Site Monitoring Wells

Well ID	Type	Reference TOC Elevation	Screen Length	Date Measured	Depth to Groundwater (from TOC)	Groundwater Elevation	Depth to Bottom of Well (from TOC)	Height of Water Column in Well
		ft MSL	ft		ft btoc	ft MSL	ft btoc	feet
TW-202I	Pz	851.13	5.	5/4/2015	4.72	846.41	20.98	16.26
TW-202I	Pz	851.13	5.	11/2/2015	5.80	845.33	20.98	15.18
TW-202I	Pz	851.13	5.	5/9/2016	4.82	846.31	20.98	16.16
TW-202I	Pz	851.13	5.	10/31/2016	3.91	847.22	20.98	17.07
TW-202I	Pz	851.13	5.	5/8/2017	3.89	847.24	20.98	17.09
OW-6	BR	851.99	5.	12/11/2014	6.34	845.65	50.56	44.22
OW-6	BR	851.99	5.	5/4/2015	5.27	846.72	50.56	45.29
OW-6	BR	851.99	5.	11/2/2015	6.69	845.30	50.56	43.87
OW-6	BR	851.99	5.	5/9/2016	5.32	846.67	50.56	45.24
OW-6	BR	851.99	5.	10/31/2016	4.79	847.20	50.56	45.77
OW-6	BR	851.99	5.	5/8/2017	4.49	847.50	50.56	46.07
MW-14DR	Pz	851.00	10.	12/15/2014	5.51	845.49	31.74	26.23
MW-14DR	Pz	851.00	10.	5/4/2015	3.58	847.42	31.74	28.16
MW-14DR	Pz	851.00	10.	11/2/2015	5.23	845.77	31.74	26.51
MW-14DR	Pz	851.00	10.	5/9/2016	4.18	846.82	31.74	27.56
MW-14DR	Pz	851.00	10.	10/31/2016	3.38	847.62	31.74	28.36
MW-14DR	Pz	851.00	10.	5/8/2017	3.06	847.94	31.74	28.68

Notes:

ft MSL = feet above mean sea level
 ft btoc = feet below top of well casing
 WT = Water Table monitoring well.
 BR = Bedrock monitoring well.

ft = feet
 TOC = Top of well casing
 Pz = Unconsolidated deposits monitoring well.

Table 2. Vertical Gradient Calculations, Oconomowoc Electroplating Company Inc. (OECI) Superfund Site Monitoring Well Nests

Vertical Gradient Calculations													
Well ID	Ground Surface Elev. (ft MSL)	Top of Casing Elev. (ft MSL)	Screen Length (ft)	Top of Screen Elev. (ft MSL)	Bottom of Screen Elev. (ft MSL)	Date	Depth to GW (ft btoc)	GW Elev. (ft MSL)	Gradient + :Down, - :Up	Date	Depth to GW (ft btoc)	GW Elev. (ft MSL)	Gradient + :Down, - :Up
MW-1S	851.75	853.42	10.0	845.95	835.95	12/10/2014	6.68	846.74		5/4/2015	5.39	848.03	
MW-1D	851.68	853.14	10.0	809.58	799.58	12/10/2014	7.07	846.07	0.0159	5/4/2015	5.32	847.82	0.0048
MW-4S	852.06	854.58	10.0	847.26	837.26	12/11/2014	8.37	846.21		5/4/2015	6.62	847.96	
MW-4D	852.08	854.63	10.0	812.18	802.18					5/4/2015	7.41	847.22	0.0181
MW-12S	846.73	849.17	10.0	843.73	833.73	12/11/2014	4.24	844.93		5/4/2015	3.79	845.38	
MW-12D	846.52	848.31	5.0	828.52	823.52	12/11/2014	2.96	845.35	-0.0222	5/4/2015	2.19	846.12	-0.0382
MW-12B	847.01	849.40	5.0	811.01	806.01	12/11/2014	4.15	845.25	0.0057	5/4/2015	3.19	846.21	-0.0051
MW-13S	847.67	850.91	10.0	844.67	834.67	12/11/2014	5.83	845.08		5/4/2015	4.98	845.93	
MW-13D	847.40	850.02	5.0	823.40	818.40	12/11/2014	4.84	845.18	-0.0041	5/4/2015	3.92	846.10	-0.0068
MW-15S	855.10	854.68	10.0	848.60	838.60	12/8/2014	9.32	845.36		5/4/2015	7.96	846.72	
MW-15D	855.53	855.30	10.0	823.53	813.53	12/9/2014	9.91	845.39	-0.0011	5/4/2015	8.90	846.40	0.0114
MW-15B	854.80	854.35	5.0	802.30	797.30	12/8/2014	10.46	843.89	0.0801	5/4/2015	13.61	840.74	0.3022
MW-101S	851.60	851.24	10.0	848.60	838.60	12/15/2014	5.31	845.93		5/4/2015	3.64	847.60	
MW-101B	851.50	851.08	5.0	807.50	802.50	12/9/2014	5.46	845.62	0.0076	5/4/2015	4.33	846.75	0.0200
MW-102S	854.20	853.65	10.0	848.20	838.20	12/9/2014	7.41	846.24		5/4/2015	7.05	846.60	
MW-102D	854.20	853.70	5.0	810.20	805.20	12/9/2014	8.39	845.31	0.0241	5/4/2015	7.32	846.38	0.0057
MW-103S	849.40	851.84	10.0	845.40	835.40	12/8/2014	6.32	845.52		5/4/2015	5.49	846.35	
MW-103D	849.30	851.97	5.0	830.30	825.30	12/8/2014	6.52	845.45	0.0040	5/4/2015	5.45	846.52	-0.0092
MW-104S	850.90	850.56	10.0	845.90	835.90					5/4/2015	4.19	846.37	
MW-104D	850.90	850.57	5.0	827.90	822.90					5/4/2015	4.06	846.51	-0.0067
MW-105S	846.40	849.01	10.0	843.40	833.40	12/10/2014	4.03	844.98		5/4/2015	3.38	845.63	
MW-105D	846.30	848.90	5.0	824.30	819.30	12/10/2014	3.52	845.38	-0.0173	5/4/2015	2.80	846.10	-0.0197
MW-105B	846.10	848.90	5.0	807.10	802.10	12/10/2014	2.82	846.08	-0.0407	5/4/2015	2.74	846.16	-0.0035
MW-106S	846.30	848.92	10.0	841.30	831.30					5/4/2015	3.81	845.11	
MW-106D	846.30	849.01	5.0	797.30	792.30					5/4/2015	2.85	846.16	-0.0209

Notes: ft = feet
ft MSL = feet above Mean Sea Level
ft bgs = feet below ground surface
ft btoc = feet below top of well casing

Table 2. Vertical Gradient Calculations, Oconomowoc Electroplating Company Inc. (OECI) Superfund Site Monitoring Well Nests

Vertical Gradient Calculations													
Well ID	Ground Surface Elev. (ft MSL)	Top of Casing Elev. (ft MSL)	Screen Length (ft)	Top of Screen Elev. (ft MSL)	Bottom of Screen Elev. (ft MSL)	Date	Depth to GW (ft btoc)	GW Elev. (ft MSL)	Gradient + :Down, - :Up	Date	Depth to GW (ft btoc)	GW Elev. (ft MSL)	Gradient + :Down, - :Up
MW-1S	851.75	853.42	10.0	845.95	835.95	11/2/2015	6.57	846.85		5/9/2016	5.57	847.85	
MW-1D	851.68	853.14	10.0	809.58	799.58	11/2/2015	6.94	846.20	0.0154	5/9/2016	5.07	848.07	-0.0051
MW-4S	852.06	854.58	10.0	847.26	837.26	11/2/2015	8.28	846.30		5/9/2016	6.71	847.87	
MW-4D	852.08	854.63	10.0	812.18	802.18	11/2/2015	8.74	845.89	0.0105	5/9/2016	7.37	847.26	0.0150
MW-12S	846.73	849.17	10.0	843.73	833.73	11/2/2015	4.34	844.83		5/9/2016	4.00	845.17	
MW-12D	846.52	848.31	5.0	828.52	823.52	11/2/2015	4.06	844.25	0.0308	5/9/2016	2.44	845.87	-0.0366
MW-12B	847.01	849.40	5.0	811.01	806.01	11/2/2015	4.11	845.29	-0.0594	5/9/2016	3.37	846.03	-0.0091
MW-13S	847.67	850.91	10.0	844.67	834.67	11/2/2015	5.96	844.95		5/9/2016	5.16	845.75	
MW-13D	847.40	850.02	5.0	823.40	818.40	11/2/2015	4.82	845.20	-0.0104	5/9/2016	4.20	845.82	-0.0028
MW-15S	855.10	854.68	10.0	848.60	838.60	11/2/2015	9.39	845.29		5/9/2016	8.11	846.57	
MW-15D	855.53	855.30	10.0	823.53	813.53	11/2/2015	9.99	845.31	-0.0007	5/9/2016	9.40	845.90	0.0239
MW-15B	854.80	854.35	5.0	802.30	797.30	11/2/2015	14.25	840.10	0.2782	5/9/2016	12.97	841.38	0.2413
MW-101S	851.60	851.24	10.0	848.60	838.60	11/2/2015	5.32	845.92		5/9/2016	3.74	847.50	
MW-101B	851.50	851.08	5.0	807.50	802.50	11/2/2015	5.52	845.56	0.0088	5/9/2016	4.60	846.48	0.0240
MW-102S	854.20	853.65	10.0	848.20	838.20	11/2/2015	8.58	845.07		5/9/2016	7.14	846.51	
MW-102D	854.20	853.70	5.0	810.20	805.20	11/2/2015	8.29	845.41	-0.0091	5/9/2016	7.56	846.14	0.0095
MW-103S	849.40	851.84	10.0	845.40	835.40	11/2/2015	6.62	845.22		5/9/2016	5.61	846.23	
MW-103D	849.30	851.97	5.0	830.30	825.30	11/2/2015	6.29	845.68	-0.0264	5/9/2016	5.65	846.32	-0.0049
MW-104S	850.90	850.56	10.0	845.90	835.90	11/2/2015	4.59	845.97		5/9/2016	4.27	846.29	
MW-104D	850.90	850.57	5.0	827.90	822.90	11/2/2015	4.70	845.87	0.0049	5/9/2016	4.46	846.11	0.0086
MW-105S	846.40	849.01	10.0	843.40	833.40	11/2/2015	3.82	845.19		5/9/2016	3.50	845.51	
MW-105D	846.30	848.90	5.0	824.30	819.30	11/2/2015	3.60	845.30	-0.0047	5/9/2016	2.95	845.95	-0.0186
MW-105B	846.10	848.90	5.0	807.10	802.10	11/2/2015	3.84	845.06	0.0140	5/9/2016	2.91	845.99	-0.0023
MW-106S	846.30	848.92	10.0	841.30	831.30	11/2/2015	4.41	844.51		5/9/2016	4.19	844.73	
MW-106D	846.30	849.01	5.0	797.30	792.30	11/2/2015	3.71	845.30	-0.0159	5/9/2016	3.12	845.89	-0.0232

Notes: ft = feet
ft MSL = feet above Mean Sea Level
ft bgs = feet below ground surface
ft btoc = feet below top of well casing

Table 2. Vertical Gradient Calculations, Oconomowoc Electroplating Company Inc. (OECI) Superfund Site Monitoring Well Nests

						Vertical Gradient Calculations							
Well ID	Ground Surface Elev. (ft MSL)	Top of Casing Elev. (ft MSL)	Screen Length (ft)	Top of Screen Elev. (ft MSL)	Bottom of Screen Elev. (ft MSL)	Date	Depth to GW (ft btoc)	GW Elev. (ft MSL)	Gradient + :Down, - :Up	Date	Depth to GW (ft btoc)	GW Elev. (ft MSL)	Gradient + :Down, - :Up
MW-1S	851.75	853.42	10.0	845.95	835.95	10/31/2016	4.74	848.68		5/8/2017	4.92	848.50	
MW-1D	851.68	853.14	10.0	809.58	799.58	10/31/2016	4.62	848.52	0.0036	5/8/2017	4.59	848.55	-0.0011
MW-4S	852.06	854.58	10.0	847.26	837.26	10/31/2016	5.88	848.70		5/8/2017	5.98	848.60	
MW-4D	852.08	854.63	10.0	812.18	802.18	10/31/2016	6.20	848.43	0.0065	5/8/2017	6.33	848.30	0.0072
MW-12S	846.73	849.17	10.0	843.73	833.73	10/31/2016	3.22	845.95		5/8/2017	3.42	845.75	
MW-12D	846.52	848.31	5.0	828.52	823.52	10/31/2016	1.62	846.69	-0.0371	5/8/2017	1.63	846.68	-0.0471
MW-12B	847.01	849.40	5.0	811.01	806.01	10/31/2016	2.65	846.75	-0.0034	5/8/2017	2.65	846.75	-0.0040
MW-13S	847.67	850.91	10.0	844.67	834.67	10/31/2016	4.46	846.45		5/8/2017	4.45	846.46	
MW-13D	847.40	850.02	5.0	823.40	818.40	10/31/2016	3.34	846.68	-0.0090	5/8/2017	3.33	846.69	-0.0090
MW-15S	855.10	854.68	10.0	848.60	838.60	10/31/2016	7.06	847.62		5/8/2017	6.93	847.75	
MW-15D	855.53	855.30	10.0	823.53	813.53	10/31/2016	8.28	847.02	0.0206	5/8/2017	8.20	847.10	0.0222
MW-15B	854.80	854.35	5.0	802.30	797.30	10/31/2016	14.08	840.27	0.3604	5/8/2017	13.39	840.96	0.3278
MW-101S	851.60	851.24	10.0	848.60	838.60	10/31/2016	2.88	848.36		5/8/2017	2.62	848.62	
MW-101B	851.50	851.08	5.0	807.50	802.50	10/31/2016	2.87	848.21	0.0035	5/8/2017	3.44	847.64	0.0225
MW-102S	854.20	853.65	10.0	848.20	838.20	10/31/2016	6.02	847.63		5/8/2017	5.94	847.71	
MW-102D	854.20	853.70	5.0	810.20	805.20	10/31/2016	6.80	846.90	0.0183	5/8/2017	6.51	847.19	0.0130
MW-103S	849.40	851.84	10.0	845.40	835.40	10/31/2016	4.97	846.87		5/8/2017	5.24	846.60	
MW-103D	849.30	851.97	5.0	830.30	825.30	10/31/2016	4.86	847.11	-0.0126	5/8/2017	5.02	846.95	-0.0186
MW-104S	850.90	850.56	10.0	845.90	835.90	10/31/2016	3.67	846.89		5/8/2017	3.89	846.67	
MW-104D	850.90	850.57	5.0	827.90	822.90	10/31/2016	3.55	847.02	-0.0060	5/8/2017	3.75	846.82	-0.0071
MW-105S	846.40	849.01	10.0	843.40	833.40	10/31/2016	2.99	846.02		5/8/2017	3.10	845.91	
MW-105D	846.30	848.90	5.0	824.30	819.30	10/31/2016	2.32	846.58	-0.0231	5/8/2017	2.25	846.65	-0.0307
MW-105B	846.10	848.90	5.0	807.10	802.10	10/31/2016	2.08	846.82	-0.0140	5/8/2017	2.12	846.78	-0.0076
MW-106S	846.30	848.92	10.0	841.30	831.30	10/31/2016	3.09	845.83		5/8/2017	3.30	845.62	
MW-106D	846.30	849.01	5.0	797.30	792.30	10/31/2016	2.24	846.77	-0.0184	5/8/2017	2.25	846.76	-0.0224

Notes: ft = feet
ft MSL = feet above Mean Sea Level
ft bgs = feet below ground surface
ft btoc = feet below top of well casing

Table 3. Groundwater Quality Data, Oconomowoc Electroplating Company Inc. (OECI) Superfund Site Monitoring Wells

	Date Sampled			12/10/2014	5/5/2015	11/03/2015	5/10/2016	11/3/2016	5/10/2017
	Units	NR140 ES	NR140 PAL	MW-1S	MW-1S	MW-1S	MW-1S	MW-1S	MW-1S
Field Parameters									
Dissolved Oxygen (DO)	mg/L	--	--	0.97	0.71	0.46	0.00	0.01	3.30
Oxidation Reduction Potential	millivolts	--	--	38	72	69	38	-53	-43
pH	pH-units	--	--	7.33	6.80	7.09	6.95	7.13	7.36
Specific Conductivity	umhos/cm	--	--	1020	1400	1380	1110	986	895
Temperature	deg-C	--	--	9.32	8.08	17.22	9.95	9.92	16.12
Turbidity	ntu	--	--	0.	10.2	0.	9.	0.	0.
Natural Attenuation Parameters									
Alkalinity, total (as CaCO ₃)	mg/L	--	--	340.	350.	380.	350.	350.	370.
Chloride (as Cl)	mg/L	250.	125.	240.	190.	230.	160.	150.	150.
Iron, total (unfiltered)	mg/L	--	--	0.473	0.183	<0.02 U	2.32	35 M	1.23
Iron, dissolved (filtered)	mg/L	0.3	0.15	<0.010 U	0.0673	0.406	0.406	0.532	0.945
Manganese, total (unfiltered)	µg/L	--	--	44.1	131.	76.7 Y,M	206.	124.	75.7
Manganese, dissolved (filtered)	µg/L	50.	25.	16.4	129.	97.2	196.	96.9	70.8
Acetylene	µg/L	--	--	<0.23 U	<0.23 UM,Y	<0.23 U	<0.23 U	<0.23 U	<0.23 U
Ethane	µg/L	--	--	<0.60 U	<0.60 UY	<0.9 U	<0.40 U	<0.40 U	<0.40 U
Ethene	µg/L	--	--	<0.90 U	<0.90 U	<1.2 U	<0.50 U	<0.50 U	<0.50 U
Methane	µg/L	--	--	2.2	16 M	8.2	18.	5.7	2.1
Sulfate(as SO ₄)	mg/L	250.	125.	50.	50.	49.	53.	46.	50.
Total Organic Carbon	mg/L	--	--	1.4 J	1.2 J	1.7	1.8	1.4 J	2.6
VOCs									
1,1,1-Trichloroethane	µg/L	200.	40.	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
1,1-Dichloroethane	µg/L	850.	85.	0.15	0.31	0.11 J	0.24	0.095 J	<0.060 U
1,1-Dichloroethene	µg/L	7.	0.7	<0.024 U	<0.024 U	<0.07 U	<0.070 U	<0.060 U	<0.060 U
1,2,3-Trichlorobenzene	µg/L	--	--	<0.040 U	<0.040 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
1,2,4-Trichlorobenzene	µg/L	70.	14.	<0.029 U	<0.029 U	<0.04 U	<0.040 U	<0.040 U	<0.040 U
1,2,4-Trimethylbenzene	µg/L	480.	96.	<0.024 U	<0.024 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
1,2-Dichlorobenzene	µg/L	600.	60.	<0.025 U	<0.025 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
1,2-Dichloroethane	µg/L	5.	0.5	<0.024 U	<0.024 U	<0.04 U	<0.040 U	<0.050 U	<0.050 U
1,3,5-Trimethylbenzene	µg/L	480.	96.	<0.022 U	<0.022 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
1,3-Dichlorobenzene	µg/L	600.	120.	<0.021 U	<0.021 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
1,4-Dioxane	µg/L	3.	0.3	NA	NA	NA	NA	<7.0 U	<7.0 U
2-Butanone (MEK)	µg/L	4000.	800.	<0.80 U	<0.80 U	<0.8 U	<0.80 U	<0.50 U	<0.50 U
2-Chlorotoluene	µg/L	--	--	<0.025 U	<0.025 U	<0.06 U	<0.060 U	<0.030 U	<0.030 U
4-Chlorotoluene	µg/L	--	--	<0.029 U	<0.029 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
Acetone	µg/L	9000.	1800.	<1.3 UZ	<1.3 UZ	<0.9 U	<0.90 U	5 B	5.1 B
Benzene	µg/L	5.	0.5	<0.019 U	<0.019 U	<0.06 U	<0.060 U	<0.018 U	<0.018 U
Bromobenzene	µg/L	--	--	<0.030 U	<0.030 U	<0.04 U	<0.040 U	<0.040 U	<0.040 U
Chlorobenzene	µg/L	--	--	<0.024 U	<0.024 U	<0.04 U	<0.040 U	<0.040 U	<0.040 U
Chloroethane	µg/L	400.	80.	<0.040 U	<0.040 U	<0.06 U	<0.060 U	<0.070 U	<0.070 U
Chloromethane	µg/L	30.	3.	<0.040 UB	<0.040 U	<0.05 U	<0.050 U	<0.040 U	0.1 JB
cis-1,2-Dichloroethene	µg/L	70.	7.	<0.030 U	0.062 J	<0.06 U	0.11 J	0.14 J	<0.070 U
Ethylbenzene	µg/L	700.	140.	<0.019 U	<0.019 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
Hexachlorobutadiene	µg/L	--	--	<0.070 U	<0.070 U	<0.07 U	<0.070 U	<0.050 U	<0.050 U
Isopropylbenzene	µg/L	--	--	<0.060 U	<0.060 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
m & p-Xylene	µg/L	2000.	400.	<0.050 U	<0.050 U	<0.12 U	<0.12 U	<0.070 U	<0.070 U
Methyl tert-butyl ether	µg/L	60.	12.	<0.040 U	<0.040 U	<0.04 U	<0.040 U	<0.040 U	<0.040 U
Methylene chloride	µg/L	5.	0.5	<0.15 U	<0.15 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
Naphthalene	µg/L	100.	10.	<0.040 U	<0.040 U	<0.05 U	<0.050 U	<0.030 U	<0.030 U
n-Butylbenzene	µg/L	--	--	<0.021 U	<0.021 U	<0.05 U	<0.050 U	<0.030 U	<0.030 U
n-Propylbenzene	µg/L	--	--	<0.022 U	<0.022 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
o-Xylene	µg/L	2000.	400.	<0.027 U	<0.027 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
p-Isopropyltoluene	µg/L	--	--	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
sec-Butylbenzene	µg/L	--	--	<0.024 U	<0.024 U	<0.05 U	<0.050 U	<0.050 U	<0.050 U
Styrene	µg/L	100.	10.	<0.020 U	<0.020 U	<0.05 U	<0.050 U	<0.030 U	<0.030 U
tert-Butylbenzene	µg/L	--	--	<0.025 U	<0.025 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
Tetrachloroethene	µg/L	5.	0.05	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
Tetrahydrofuran	µg/L	50.	10.	<0.70 U	<0.70 U	<0.6 U	0.74 JB,Z	<0.40 U	<0.40 U
Toluene	µg/L	800.	160.	<0.027 U	<0.027 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
trans-1,2-Dichloroethene	µg/L	100.	20.	<0.040 U	<0.040 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
Trichloroethene	µg/L	5.	0.5	0.021 J	0.05 J	<0.03 U	0.061 J	0.15 J	0.15 J
Vinyl acetate	µg/L	--	--	<0.60 U	<0.60 U	<0.5 U	<0.50 U	<0.22 U	<0.22 U
Vinyl chloride	µg/L	0.2	0.02	<0.019 U	<0.019 U	<0.016 U	<0.016 U	<0.019 U	<0.019 U

Table 3. Groundwater Quality Data, Oconomowoc Electroplating Company Inc. (OECI) Superfund Site Monitoring Wells

	Date Sampled			12/10/2014	5/5/2015	11/03/2015	5/10/2016	11/3/2016	5/10/2017
	Units	NR140 ES	NR140 PAL	MW-1D	MW-1D	MW-1D	MW-1D	MW-1D	MW-1D
Field Parameters									
Dissolved Oxygen (DO)	mg/L	--	--	10.96	0.00	1.26	0.27	0.72	0.09
Oxidation Reduction Potential	millivolts	--	--	-155	-107	-133	-74	-144	-124
pH	pH-units	--	--	7.66	7.48	8.33	7.42	7.48	7.54
Specific Conductivity	umhos/cm	--	--	505	638	531	613	562	0.504
Temperature	deg-C	--	--	10.67	9.52	15.81	11.39	8.33	14.61
Turbidity	ntu	--	--	0.	6.	0.	1.6	0.	0.
Natural Attenuation Parameters									
Alkalinity, total (as CaCO ₃)	mg/L	--	--	350.	330.	370.	370.	380.	380.
Chloride (as Cl)	mg/L	250.	125.	7.8	5.9	5.8	5.6	5.9	5.1
Iron, total (unfiltered)	mg/L	--	--	3.14	2.15 M	3.14	1.67	2.98	2.01
Iron, dissolved (filtered)	mg/L	0.3	0.15	3.07	1.76	2.88	1.47	2.9	1.79
Manganese, total (unfiltered)	µg/L	--	--	18.2	18.7	18.2	13.8	18.7	5.8 J
Manganese, dissolved (filtered)	µg/L	50.	25.	20.7	21.6	22.8	14.9	18.	5.8 J
Acetylene	µg/L	--	--	<0.23 UM	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U
Ethane	µg/L	--	--	0.75 J	<0.60 U	<0.9 U	<0.40 U	0.6 J	<0.40 U
Ethene	µg/L	--	--	<0.90 U	<0.90 U	<1.2 U	<0.50 U	<0.50 U	<0.50 U
Methane	µg/L	--	--	1500 M	560.	1900.	770.	110.	170.
Sulfate(as SO ₄)	mg/L	250.	125.	<1.0 U	<1.0 U	<1 U	0.55 J	<1.0 U	<1.0 U
Total Organic Carbon	mg/L	--	--	<0.40 U	0.52 JY	0.46 J	1.2 J	<0.50 U	2.
VOCs									
1,1,1-Trichloroethane	µg/L	200.	40.	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
1,1-Dichloroethane	µg/L	850.	85.	<0.024 U	<0.024 U	<0.06 U	<0.060 U	<0.060 U	<0.060 U
1,1-Dichloroethene	µg/L	7.	0.7	<0.024 U	<0.024 U	<0.07 U	<0.070 U	<0.060 U	<0.060 U
1,2,3-Trichlorobenzene	µg/L	--	--	<0.040 U	<0.040 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
1,2,4-Trichlorobenzene	µg/L	70.	14.	<0.029 U	<0.029 U	<0.04 U	<0.040 U	<0.040 U	<0.040 U
1,2,4-Trimethylbenzene	µg/L	480.	96.	<0.024 U	<0.024 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
1,2-Dichlorobenzene	µg/L	600.	60.	<0.025 U	<0.025 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
1,2-Dichloroethane	µg/L	5.	0.5	<0.024 U	<0.024 U	<0.04 U	<0.040 U	<0.050 U	<0.050 U
1,3,5-Trimethylbenzene	µg/L	480.	96.	<0.022 U	<0.022 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
1,3-Dichlorobenzene	µg/L	600.	120.	<0.021 U	<0.021 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
1,4-Dioxane	µg/L	3.	0.3	NA	NA	NA	NA	<7.0 U	<7.0 U
2-Butanone (MEK)	µg/L	4000.	800.	<0.80 U	<0.80 U	<0.8 U	<0.80 U	<0.50 U	<0.50 U
2-Chlorotoluene	µg/L	--	--	<0.025 U	<0.025 U	<0.06 U	<0.060 U	<0.030 U	<0.030 U
4-Chlorotoluene	µg/L	--	--	<0.029 U	<0.029 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
Acetone	µg/L	9000.	1800.	<1.3 UZ	<1.3 UZ	<0.9 U	<0.90 U	<0.30 U	0.34 JB
Benzene	µg/L	5.	0.5	<0.019 U	0.092	<0.06 U	<0.060 U	0.032 J	0.091
Bromobenzene	µg/L	--	--	<0.030 U	<0.030 U	<0.04 U	<0.040 U	<0.040 U	<0.040 U
Chlorobenzene	µg/L	--	--	<0.024 U	<0.024 U	<0.04 U	<0.040 U	<0.040 U	<0.040 U
Chloroethane	µg/L	400.	80.	<0.040 U	<0.040 U	<0.06 U	<0.060 U	<0.070 U	<0.070 U
Chloromethane	µg/L	30.	3.	0.088 JB	<0.040 U	<0.05 U	<0.050 U	<0.040 U	0.041 JB
cis-1,2-Dichloroethene	µg/L	70.	7.	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.070 U	<0.070 U
Ethylbenzene	µg/L	700.	140.	0.091	0.037 J	0.067 J	<0.060 U	0.066 J	0.04 J
Hexachlorobutadiene	µg/L	--	--	<0.070 U	<0.070 U	<0.07 U	<0.070 U	<0.050 U	<0.050 U
Isopropylbenzene	µg/L	--	--	0.13 J	<0.060 U	0.071 J	0.050 J	0.078 J	0.043 J
m & p-Xylene	µg/L	2000.	400.	0.11 J	0.067 J	<0.12 U	<0.12 U	0.082 J	<0.070 U
Methyl tert-butyl ether	µg/L	60.	12.	<0.040 U	<0.040 U	<0.04 U	<0.040 U	<0.040 U	<0.040 U
Methylene chloride	µg/L	5.	0.5	<0.15 U	<0.15 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
Naphthalene	µg/L	100.	10.	0.066 J	0.055 J	0.065 J	<0.050 U	0.043 J	0.044 J
n-Butylbenzene	µg/L	--	--	<0.021 U	<0.021 U	<0.05 U	<0.050 U	<0.030 U	<0.030 U
n-Propylbenzene	µg/L	--	--	<0.022 U	<0.022 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
o-Xylene	µg/L	2000.	400.	0.033 J	0.029 J	<0.05 U	<0.050 U	<0.040 U	<0.040 U
p-Isopropyltoluene	µg/L	--	--	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
sec-Butylbenzene	µg/L	--	--	<0.024 U	<0.024 U	<0.05 U	<0.050 U	<0.050 U	<0.050 U
Styrene	µg/L	100.	10.	0.19	0.092	0.19	0.089 J	0.17	0.078 J
tert-Butylbenzene	µg/L	--	--	<0.025 U	<0.025 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
Tetrachloroethene	µg/L	5.	0.05	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
Tetrahydrofuran	µg/L	50.	10.	<0.70 U	<0.70 U	<0.6 U	<0.60 U	<0.40 U	<0.40 U
Toluene	µg/L	800.	160.	0.051 J	0.04 J	<0.06 U	<0.060 U	<0.040 U	<0.040 U
trans-1,2-Dichloroethene	µg/L	100.	20.	<0.040 U	<0.040 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
Trichloroethene	µg/L	5.	0.5	<0.020 U	<0.020 U	<0.03 U	<0.030 U	<0.050 U	<0.050 U
Vinyl acetate	µg/L	--	--	<0.60 U	<0.60 U	<0.5 U	<0.50 U	<0.22 U	<0.22 U
Vinyl chloride	µg/L	0.2	0.02	0.12	0.076	0.14	<0.016 U	0.11	0.078

Table 3. Groundwater Quality Data, Oconomowoc Electroplating Company Inc. (OECI) Superfund Site Monitoring Wells

	Date Sampled			12/11/2014	5/6/2015	11/04/2015	5/18/2016	11/2/2016	5/10/2017
	Units	NR140 ES	NR140 PAL	MW-2D	MW-2D	MW-2D	MW-2D	MW-2D	MW-2D
Field Parameters									
Dissolved Oxygen (DO)	mg/L	--	--	0.17	7.22	0.46	0.00	0.33	3.56
Oxidation Reduction Potential	millivolts	--	--	-100	68	-111	25	-90	165
pH	pH-units	--	--	7.39	7.36	7.80	7.03	7.22	7.36
Specific Conductivity	umhos/cm	--	--	1050	960	782	1020	1140	1110
Temperature	deg-C	--	--	8.29	11.13	21.16	12.13	6.77	10.56
Turbidity	ntu	--	--	0.	0.6	2.8	0.	0.	0.
Natural Attenuation Parameters									
Alkalinity, total (as CaCO ₃)	mg/L	--	--	380.	350.	380.	390.	390.	400.
Chloride (as Cl)	mg/L	250.	125.	360.	180.	180.	200.	180.	170.
Iron, total (unfiltered)	mg/L	--	--	2.81	0.243	2.6	0.423	1.69	0.485
Iron, dissolved (filtered)	mg/L	0.3	0.15	2.31	0.0235 J	2.52	0.34	1.6	0.147 J
Manganese, total (unfiltered)	µg/L	--	--	21.9	6.1	28.2	19.3	21.9	5.4 J
Manganese, dissolved (filtered)	µg/L	50.	25.	23.5	5.4	22.8	15.8	21.4	<2.2 U
Acetylene	µg/L	--	--	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U
Ethane	µg/L	--	--	<0.60 U	<0.60 U	<0.9 U	<0.40 U	<0.40 U	<0.40 U
Ethene	µg/L	--	--	<0.90 U	<0.90 U	<1.2 U	<0.50 U	<0.50 U	<0.50 U
Methane	µg/L	--	--	180.	2.6	120.	68.	52.	7.
Sulfate(as SO ₄)	mg/L	250.	125.	48.	44.	40.	45.	39.	43.
Total Organic Carbon	mg/L	--	--	2.1	0.61 J	1.1 J	2.8 Y	1.7	3.2
VOCs									
1,1,1-Trichloroethane	µg/L	200.	40.	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
1,1-Dichloroethane	µg/L	850.	85.	0.24	0.18	0.22	0.13 J	0.18 J	0.15 J
1,1-Dichloroethene	µg/L	7.	0.7	<0.024 U	<0.024 U	<0.07 U	<0.070 U	<0.060 U	<0.060 U
1,2,3-Trichlorobenzene	µg/L	--	--	<0.040 U	<0.040 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
1,2,4-Trichlorobenzene	µg/L	70.	14.	<0.029 U	<0.029 U	<0.04 U	<0.040 U	<0.040 U	<0.040 U
1,2,4-Trimethylbenzene	µg/L	480.	96.	<0.024 U	<0.024 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
1,2-Dichlorobenzene	µg/L	600.	60.	<0.025 U	<0.025 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
1,2-Dichloroethane	µg/L	5.	0.5	<0.024 U	<0.024 U	<0.04 U	<0.040 U	<0.050 U	<0.050 U
1,3,5-Trimethylbenzene	µg/L	480.	96.	<0.022 U	<0.022 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
1,3-Dichlorobenzene	µg/L	600.	120.	0.12	<0.021 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
1,4-Dioxane	µg/L	3.	0.3	NA	NA	NA	NA	<7.0 U	9.7 J
2-Butanone (MEK)	µg/L	4000.	800.	<0.80 U	<0.80 U	<0.8 U	<0.80 U	<0.50 U	<0.50 U
2-Chlorotoluene	µg/L	--	--	<0.025 U	<0.025 U	<0.06 U	<0.060 U	<0.030 U	<0.030 U
4-Chlorotoluene	µg/L	--	--	<0.029 U	<0.029 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
Acetone	µg/L	9000.	1800.	<1.3 UZ	<1.3 UZ	<0.9 U	<0.90 U	<0.30 U	0.46 JB
Benzene	µg/L	5.	0.5	<0.019 U	<0.019 U	<0.06 U	<0.060 U	<0.018 U	<0.018 U
Bromobenzene	µg/L	--	--	<0.030 U	<0.030 U	<0.04 U	<0.040 U	<0.040 U	<0.040 U
Chlorobenzene	µg/L	--	--	<0.024 U	<0.024 U	<0.04 U	<0.040 U	<0.040 U	<0.040 U
Chloroethane	µg/L	400.	80.	<0.040 U	<0.040 U	<0.06 U	<0.060 U	<0.070 U	<0.070 U
Chloromethane	µg/L	30.	3.	0.099 JB	<0.040 U	<0.05 U	0.13 J	0.07 J	0.044 JB
cis-1,2-Dichloroethene	µg/L	70.	7.	0.43	0.13	0.44	0.24	0.35	0.17 J
Ethylbenzene	µg/L	700.	140.	<0.019 U	<0.019 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
Hexachlorobutadiene	µg/L	--	--	<0.070 U	<0.070 U	<0.07 U	<0.070 U	<0.050 U	<0.050 U
Isopropylbenzene	µg/L	--	--	<0.060 U	<0.060 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
m & p-Xylene	µg/L	2000.	400.	<0.050 U	<0.050 U	<0.12 U	<0.12 U	<0.070 U	<0.070 U
Methyl tert-butyl ether	µg/L	60.	12.	0.087 J	<0.040 U	0.084 J	0.095 J	0.082 J	0.041 J
Methylene chloride	µg/L	5.	0.5	<0.15 U	<0.15 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
Naphthalene	µg/L	100.	10.	<0.040 U	<0.040 U	<0.05 U	<0.050 U	<0.030 U	<0.030 U
n-Butylbenzene	µg/L	--	--	<0.021 U	<0.021 U	<0.05 U	<0.050 U	<0.030 U	<0.030 U
n-Propylbenzene	µg/L	--	--	<0.022 U	<0.022 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
o-Xylene	µg/L	2000.	400.	<0.027 U	<0.027 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
p-Isopropyltoluene	µg/L	--	--	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
sec-Butylbenzene	µg/L	--	--	<0.024 U	<0.024 U	<0.05 U	<0.050 U	<0.050 U	<0.050 U
Styrene	µg/L	100.	10.	<0.020 U	<0.020 U	<0.05 U	<0.050 U	<0.030 U	<0.030 U
tert-Butylbenzene	µg/L	--	--	<0.025 U	<0.025 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
Tetrachloroethene	µg/L	5.	0.05	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
Tetrahydrofuran	µg/L	50.	10.	<0.70 U	<0.70 U	<0.6 U	0.98 JB	0.7 JB	<0.40 U
Toluene	µg/L	800.	160.	<0.027 U	<0.027 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
trans-1,2-Dichloroethene	µg/L	100.	20.	0.044 J	<0.040 U	0.15 J	<0.060 U	0.072 J	<0.040 U
Trichloroethene	µg/L	5.	0.5	0.056 J	0.022 J	0.05 J	<0.030 U	<0.050 U	<0.050 U
Vinyl acetate	µg/L	--	--	<0.60 U	<0.60 U	<0.5 U	<0.50 U	<0.22 U	<0.22 U
Vinyl chloride	µg/L	0.2	0.02	0.12	<0.019 U	0.11	<0.016 U	0.052 J	<0.019 U

Table 3. Groundwater Quality Data, Oconomowoc Electroplating Company Inc. (OECI) Superfund Site Monitoring Wells

	Date Sampled			12/10/2014	5/7/2015	11/04/2015	5/18/2016	11/2/2016	5/12/2017
	Units	NR140 ES	NR140 PAL	MW-3D	MW-3D	MW-3D	MW-3D	MW-3D	MW-3D
Field Parameters									
Dissolved Oxygen (DO)	mg/L	--	--	0.96	0.64	0.19	0.44	1.31	2.32
Oxidation Reduction Potential	millivolts	--	--	-101	-87	-101	54	-62	114
pH	pH-units	--	--	7.76	6.65	7.62	7.08	7.22	7.34
Specific Conductivity	umhos/cm	--	--	951	930	861	970	1080	1010
Temperature	deg-C	--	--	8.31	12.42	13.78	11.98	6.14	12.44
Turbidity	ntu	--	--	0.	4.5	0.	0.	0.	0.
Natural Attenuation Parameters									
Alkalinity, total (as CaCO ₃)	mg/L	--	--	340.	320.	360.	360.	380.	380.
Chloride (as Cl)	mg/L	250.	125.	200.	200.	190.	190.	170.	170.
Iron, total (unfiltered)	mg/L	--	--	1.7	1.39	0.712	0.437	0.49	0.459
Iron, dissolved (filtered)	mg/L	0.3	0.15	0.789	1.07	0.805	0.471	0.326	0.281
Manganese, total (unfiltered)	µg/L	--	--	45.	28.4 Y	40.3	45.3	50.4	8 J
Manganese, dissolved (filtered)	µg/L	50.	25.	29.7	26.5	36.4	37.7	50.2	4.5 J
Acetylene	µg/L	--	--	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U
Ethane	µg/L	--	--	<0.60 U	<0.60 U	<0.9 U	<0.40 U	<0.40 U	<0.40 U
Ethene	µg/L	--	--	<0.90 U	<0.90 U	<1.2 U	<0.50 U	<0.50 U	<0.50 U
Methane	µg/L	--	--	33.	15.	27.	32.	18.	2.5
Sulfate(as SO ₄)	mg/L	250.	125.	44.	42.	41.	47.	42.	45.
Total Organic Carbon	mg/L	--	--	0.80 J	1.6	0.63 J	1.8	1.6 J	3.
VOCs									
1,1,1-Trichloroethane	µg/L	200.	40.	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
1,1-Dichloroethane	µg/L	850.	85.	<0.024 U	<0.024 U	<0.06 U	<0.060 U	<0.060 U	<0.060 U
1,1-Dichloroethene	µg/L	7.	0.7	<0.024 U	<0.024 U	<0.07 U	<0.070 U	<0.060 U	<0.060 U
1,2,3-Trichlorobenzene	µg/L	--	--	<0.040 U	<0.040 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
1,2,4-Trichlorobenzene	µg/L	70.	14.	<0.029 U	<0.029 U	<0.04 U	<0.040 U	<0.040 U	<0.040 U
1,2,4-Trimethylbenzene	µg/L	480.	96.	<0.024 U	<0.024 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
1,2-Dichlorobenzene	µg/L	600.	60.	<0.025 U	<0.025 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
1,2-Dichloroethane	µg/L	5.	0.5	<0.024 U	<0.024 U	<0.04 U	<0.040 U	<0.050 U	<0.050 U
1,3,5-Trimethylbenzene	µg/L	480.	96.	<0.022 U	<0.022 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
1,3-Dichlorobenzene	µg/L	600.	120.	<0.021 U	<0.021 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
1,4-Dioxane	µg/L	3.	0.3	NA	NA	NA	NA	<7.0 U	<7.0 U
2-Butanone (MEK)	µg/L	4000.	800.	<0.80 U	<0.80 U	<0.8 U	<0.80 U	<0.50 U	<0.50 U
2-Chlorotoluene	µg/L	--	--	<0.025 U	<0.025 U	<0.06 U	<0.060 U	<0.030 U	<0.030 U
4-Chlorotoluene	µg/L	--	--	<0.029 U	<0.029 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
Acetone	µg/L	9000.	1800.	<1.3 UZ	<1.3 UZ	<0.9 U	<0.90 U	<0.30 U	0.57 JB
Benzene	µg/L	5.	0.5	<0.019 U	<0.019 U	<0.06 U	<0.060 U	<0.018 U	<0.018 U
Bromobenzene	µg/L	--	--	<0.030 U	<0.030 U	<0.04 U	<0.040 U	<0.040 U	<0.040 U
Chlorobenzene	µg/L	--	--	<0.024 U	<0.024 U	<0.04 U	<0.040 U	<0.040 U	<0.040 U
Chloroethane	µg/L	400.	80.	<0.040 U	<0.040 U	<0.06 U	<0.060 U	<0.070 U	<0.070 U
Chloromethane	µg/L	30.	3.	0.055 JB	<0.040 U	0.072 JB	0.14 J	0.048 J	0.099 J
cis-1,2-Dichloroethene	µg/L	70.	7.	0.13	0.19	0.18 J	0.35	0.3	0.17 J
Ethylbenzene	µg/L	700.	140.	<0.019 U	<0.019 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
Hexachlorobutadiene	µg/L	--	--	<0.070 U	<0.070 U	<0.07 U	<0.070 U	<0.050 U	<0.050 U
Isopropylbenzene	µg/L	--	--	<0.060 U	<0.060 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
m & p-Xylene	µg/L	2000.	400.	<0.050 U	<0.050 U	<0.12 U	<0.12 U	<0.070 U	<0.070 U
Methyl tert-butyl ether	µg/L	60.	12.	0.27	0.21	0.35	0.38	0.28	0.13
Methylene chloride	µg/L	5.	0.5	<0.15 U	<0.15 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
Naphthalene	µg/L	100.	10.	<0.040 U	<0.040 U	<0.05 U	<0.050 U	<0.030 U	<0.030 U
n-Butylbenzene	µg/L	--	--	<0.021 U	<0.021 U	<0.05 U	<0.050 U	<0.030 U	<0.030 U
n-Propylbenzene	µg/L	--	--	<0.022 U	<0.022 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
o-Xylene	µg/L	2000.	400.	<0.027 U	<0.027 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
p-Isopropyltoluene	µg/L	--	--	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
sec-Butylbenzene	µg/L	--	--	<0.024 U	<0.024 U	<0.05 U	<0.050 U	<0.050 U	<0.050 U
Styrene	µg/L	100.	10.	<0.020 U	<0.020 U	<0.05 U	<0.050 U	<0.030 U	<0.030 U
tert-Butylbenzene	µg/L	--	--	<0.025 U	<0.025 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
Tetrachloroethene	µg/L	5.	0.05	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
Tetrahydrofuran	µg/L	50.	10.	<0.70 U	<0.70 U	<0.6 U	<0.60 U	0.49 JB	<0.40 U
Toluene	µg/L	800.	160.	<0.027 U	<0.027 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
trans-1,2-Dichloroethene	µg/L	100.	20.	<0.040 U	<0.040 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
Trichloroethene	µg/L	5.	0.5	<0.020 U	<0.020 U	<0.03 U	<0.030 U	<0.050 U	<0.050 U
Vinyl acetate	µg/L	--	--	<0.60 U	<0.60 U	<0.5 U	<0.50 U	<0.22 U	<0.22 U
Vinyl chloride	µg/L	0.2	0.02	<0.019 U	<0.019 U	<0.016 U	0.024 J	<0.019 U	<0.019 U

Table 3. Groundwater Quality Data, Oconomowoc Electroplating Company Inc. (OECI) Superfund Site Monitoring Wells

	Date Sampled			12/11/2014	5/7/2015	11/04/2015	5/10/2016	11/2/2016	5/11/2017
	Units	NR140 ES	NR140 PAL	MW-4S	MW-4S	MW-4S	MW-4S	MW-4S	MW-4S
Field Parameters									
Dissolved Oxygen (DO)	mg/L	--	--	1.37	0.00	0.46	0.00	0.86	0.49
Oxidation Reduction Potential	millivolts	--	--	85	97	79	97	11	246
pH	pH-units	--	--	7.01	6.58	7.13	6.90	6.71	6.90
Specific Conductivity	umhos/cm	--	--	4180	1730	1920	1580	2020	1140
Temperature	deg-C	--	--	8.54	10.07	18.02	9.41	8.31	11.69
Turbidity	ntu	--	--	2.56	0.3	0.	32.6	0.	0.
Natural Attenuation Parameters									
Alkalinity, total (as CaCO ₃)	mg/L	--	--	520.	740.	580.	740.	530.	600.
Chloride (as Cl)	mg/L	250.	125.	1000.	130.	400.	42.	300 M	150.
Iron, total (unfiltered)	mg/L	--	--	0.236	0.142	0.361	0.556	0.474	0.242
Iron, dissolved (filtered)	mg/L	0.3	0.15	0.0474	0.0633	0.0178 J	0.501	<0.059 U	0.146 J
Manganese, total (unfiltered)	µg/L	--	--	176.	39.6	73.5	97.2	65.6	151.
Manganese, dissolved (filtered)	µg/L	50.	25.	193.	39.8	58.3	111.	64.1	149.
Acetylene	µg/L	--	--	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U
Ethane	µg/L	--	--	<0.60 U	<0.60 U	<0.9 U	<0.40 U	<0.40 U	<0.40 U
Ethene	µg/L	--	--	<0.90 U	<0.90 U	<1.2 U	<0.50 U	<0.50 U	<0.50 U
Methane	µg/L	--	--	1.1	0.36 J	0.53 J	20.	1.1 J	3.1
Sulfate(as SO ₄)	mg/L	250.	125.	99.	220.	97.	100.	85 M	69.
Total Organic Carbon	mg/L	--	--	5.3	9.7	3.6	10.	4.8	7.7
VOCs									
1,1,1-Trichloroethane	µg/L	200.	40.	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
1,1-Dichloroethane	µg/L	850.	85.	<0.024 U	<0.024 U	<0.06 U	<0.060 U	<0.060 U	<0.060 U
1,1-Dichloroethene	µg/L	7.	0.7	<0.024 U	<0.024 U	<0.07 U	<0.070 U	<0.060 U	<0.060 U
1,2,3-Trichlorobenzene	µg/L	--	--	<0.040 U	<0.040 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
1,2,4-Trichlorobenzene	µg/L	70.	14.	<0.029 U	<0.029 U	<0.04 U	<0.040 U	<0.040 U	<0.040 U
1,2,4-Trimethylbenzene	µg/L	480.	96.	<0.024 U	<0.024 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
1,2-Dichlorobenzene	µg/L	600.	60.	<0.025 U	<0.025 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
1,2-Dichloroethane	µg/L	5.	0.5	<0.024 U	<0.024 U	<0.04 U	<0.040 U	<0.050 U	<0.050 U
1,3,5-Trimethylbenzene	µg/L	480.	96.	<0.022 U	<0.022 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
1,3-Dichlorobenzene	µg/L	600.	120.	0.094	<0.021 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
1,4-Dioxane	µg/L	3.	0.3	NA	NA	NA	NA	<7.0 U	<7.0 U
2-Butanone (MEK)	µg/L	4000.	800.	<0.80 U	<0.80 U	<0.8 U	<0.80 U	<0.50 U	<0.50 U
2-Chlorotoluene	µg/L	--	--	<0.025 U	<0.025 U	<0.06 U	<0.060 U	<0.030 U	<0.030 U
4-Chlorotoluene	µg/L	--	--	<0.029 U	<0.029 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
Acetone	µg/L	9000.	1800.	<1.3 UZ	<1.3 UZ	<0.9 U	<0.90 U	<0.30 U	0.53 JB
Benzene	µg/L	5.	0.5	<0.019 U	<0.019 U	<0.06 U	<0.060 U	<0.018 U	<0.018 U
Bromobenzene	µg/L	--	--	<0.030 U	<0.030 U	<0.04 U	<0.040 U	<0.040 U	<0.040 U
Chlorobenzene	µg/L	--	--	<0.024 U	<0.024 U	<0.04 U	<0.040 U	<0.040 U	<0.040 U
Chloroethane	µg/L	400.	80.	<0.040 U	<0.040 U	<0.06 U	<0.060 U	<0.070 U	<0.070 U
Chloromethane	µg/L	30.	3.	0.089 JB	<0.040 U	0.058 J	<0.050 U	0.079 J	0.043 J
cis-1,2-Dichloroethene	µg/L	70.	7.	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.070 U	<0.070 U
Ethylbenzene	µg/L	700.	140.	<0.019 U	<0.019 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
Hexachlorobutadiene	µg/L	--	--	<0.070 U	<0.070 U	<0.07 U	<0.070 U	<0.050 U	<0.050 U
Isopropylbenzene	µg/L	--	--	<0.060 U	<0.060 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
m & p-Xylene	µg/L	2000.	400.	<0.050 U	<0.050 U	<0.12 U	<0.12 U	<0.070 U	<0.070 U
Methyl tert-butyl ether	µg/L	60.	12.	<0.040 U	<0.040 U	<0.04 U	<0.040 U	<0.040 U	<0.040 U
Methylene chloride	µg/L	5.	0.5	<0.15 U	<0.15 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
Naphthalene	µg/L	100.	10.	<0.040 U	<0.040 U	<0.05 U	<0.050 U	<0.030 U	<0.030 U
n-Butylbenzene	µg/L	--	--	<0.021 U	<0.021 U	<0.05 U	<0.050 U	<0.030 U	<0.030 U
n-Propylbenzene	µg/L	--	--	<0.022 U	<0.022 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
o-Xylene	µg/L	2000.	400.	<0.027 U	<0.027 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
p-Isopropyltoluene	µg/L	--	--	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
sec-Butylbenzene	µg/L	--	--	<0.024 U	<0.024 U	<0.05 U	<0.050 U	<0.050 U	<0.050 U
Styrene	µg/L	100.	10.	<0.020 U	<0.020 U	<0.05 U	<0.050 U	<0.030 U	<0.030 U
tert-Butylbenzene	µg/L	--	--	<0.025 U	<0.025 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
Tetrachloroethene	µg/L	5.	0.05	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
Tetrahydrofuran	µg/L	50.	10.	<0.70 U	<0.70 U	<0.6 U	0.66 JB,Z	<0.40 U	<0.40 U
Toluene	µg/L	800.	160.	<0.027 U	<0.027 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
trans-1,2-Dichloroethene	µg/L	100.	20.	<0.040 U	<0.040 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
Trichloroethene	µg/L	5.	0.5	<0.020 U	<0.020 U	<0.03 U	<0.030 U	<0.050 U	<0.050 U
Vinyl acetate	µg/L	--	--	<0.60 U	<0.60 U	<0.5 U	<0.50 U	<0.22 U	<0.22 U
Vinyl chloride	µg/L	0.2	0.02	<0.019 U	<0.019 U	<0.016 U	<0.016 U	<0.019 U	<0.019 U

Table 3. Groundwater Quality Data, Oconomowoc Electroplating Company Inc. (OECI) Superfund Site Monitoring Wells

	Date Sampled			12/10/2014	5/5/2015	11/03/2015	5/11/2016	11/3/2016	5/12/2017
	Units	NR140 ES	NR140 PAL	MW-5D	MW-5D	MW-5D	MW-5D	MW-5D	MW-5D
Field Parameters									
Dissolved Oxygen (DO)	mg/L	--	--	3.32	0.00	0.59	0.01	0.15	0.13
Oxidation Reduction Potential	millivolts	--	--	-78	-38	-65	-40	-81	-42
pH	pH-units	--	--	7.60	7.32	7.45	7.13	7.21	7.28
Specific Conductivity	umhos/cm	--	--	999	1240	895	1090	1070	1040
Temperature	deg-C	--	--	7.83	9.22	18.15	13.76	6.47	11.10
Turbidity	ntu	--	--	0.	23.7	9.4	25.1	0.	0.
Natural Attenuation Parameters									
Alkalinity, total (as CaCO ₃)	mg/L	--	--	390.	370.	400.	400.	410.	420.
Chloride (as Cl)	mg/L	250.	125.	180.	160.	140.	150.	140.	140.
Iron, total (unfiltered)	mg/L	--	--	1.61	1.53	1.6	2.05	2.11	1.67
Iron, dissolved (filtered)	mg/L	0.3	0.15	1.51	0.989	1.69	0.865	1.83	1.46
Manganese, total (unfiltered)	µg/L	--	--	68.7	137.	61.9	116.	70.2	57.7
Manganese, dissolved (filtered)	µg/L	50.	25.	67.7	68.	65.7	116.	71.1	50.
Acetylene	µg/L	--	--	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U
Ethane	µg/L	--	--	<0.60 U	<0.60 U	<0.9 U	<0.40 U	<0.40 U	<0.40 U
Ethene	µg/L	--	--	<0.90 U	<0.90 U	<1.2 U	0.55 J	<0.50 U	<0.50 U
Methane	µg/L	--	--	41.	26.	44.	44.	38 M	2.4
Sulfate(as SO ₄)	mg/L	250.	125.	57.	51.	50.	52.	47.	50.
Total Organic Carbon	mg/L	--	--	0.95 J	1.3 J	0.65 J	2.6	1.5 J	2.8
VOCs									
1,1,1-Trichloroethane	µg/L	200.	40.	<0.15 U	<0.15 U	<0.3 U	<0.30 U	<0.25 U	<0.25 U
1,1-Dichloroethane	µg/L	850.	85.	6.1	6.8	4.4	7.6	6.7	8.6
1,1-Dichloroethene	µg/L	7.	0.7	0.51	0.69	0.35 J	0.74 J	0.69 J	0.93 J
1,2,3-Trichlorobenzene	µg/L	--	--	<0.20 U	<0.20 U	<0.25 U	<0.25 U	<0.20 U	<0.20 U
1,2,4-Trichlorobenzene	µg/L	70.	14.	<0.15 U	<0.15 U	<0.2 U	<0.20 U	<0.20 U	<0.20 U
1,2,4-Trimethylbenzene	µg/L	480.	96.	<0.12 U	<0.12 U	<0.25 U	<0.25 U	<0.20 U	<0.20 U
1,2-Dichlorobenzene	µg/L	600.	60.	<0.13 U	<0.13 U	<0.3 U	<0.30 U	<0.20 U	<0.20 U
1,2-Dichloroethane	µg/L	5.	0.5	0.91	0.56	1.3	0.53 J	0.39 J	0.26 J
1,3,5-Trimethylbenzene	µg/L	480.	96.	<0.11 U	<0.11 U	<0.3 U	<0.30 U	<0.25 U	<0.25 U
1,3-Dichlorobenzene	µg/L	600.	120.	<0.11 U	<0.11 U	<0.3 U	<0.30 U	<0.20 U	<0.20 U
1,4-Dioxane	µg/L	3.	0.3	NA	NA	NA	NA	<35 U	<35 U
2-Butanone (MEK)	µg/L	4000.	800.	<4.0 U	<4.0 U	<4 U	<4.0 U	<2.5 U	<2.5 U
2-Chlorotoluene	µg/L	--	--	<0.13 U	<0.13 U	<0.3 U	<0.30 U	<0.15 U	<0.15 U
4-Chlorotoluene	µg/L	--	--	<0.15 U	<0.15 U	<0.25 U	<0.25 U	<0.20 U	<0.20 U
Acetone	µg/L	9000.	1800.	<6.5 UZ	<6.5 UZ	<4.5 U	98 B	<1.5 U	5.6 B
Benzene	µg/L	5.	0.5	<0.095 U	<0.095 U	<0.3 U	<0.30 U	<0.090 U	<0.090 U
Bromobenzene	µg/L	--	--	<0.15 U	<0.15 U	<0.2 U	<0.20 U	<0.20 U	<0.20 U
Chlorobenzene	µg/L	--	--	<0.12 U	<0.12 U	<0.2 U	<0.20 U	<0.20 U	<0.20 U
Chloroethane	µg/L	400.	80.	<0.20 U	<0.20 U	<0.3 U	<0.30 U	<0.35 U	<0.35 U
Chloromethane	µg/L	30.	3.	<0.20 U	<0.20 U	<0.25 U	<0.25 U	<0.20 U	<0.20 U
cis-1,2-Dichloroethene	µg/L	70.	7.	72.	73.	51.	76.	67.	78.
Ethylbenzene	µg/L	700.	140.	<0.095 U	<0.095 U	<0.3 U	<0.30 U	<0.20 U	<0.20 U
Hexachlorobutadiene	µg/L	--	--	<0.35 U	<0.35 U	<0.35 U	<0.35 U	<0.25 U	<0.25 U
Isopropylbenzene	µg/L	--	--	<0.30 U	<0.30 U	<0.25 U	<0.25 U	<0.20 U	<0.20 U
m & p-Xylene	µg/L	2000.	400.	<0.25 U	<0.25 U	<0.6 U	<0.60 U	<0.35 U	<0.35 U
Methyl tert-butyl ether	µg/L	60.	12.	<0.20 U	<0.20 U	0.21 J	0.27 J	<0.20 U	<0.20 U
Methylene chloride	µg/L	5.	0.5	4.2	<0.75 U	<0.3 U	1.5	<0.25 U	1.9
Naphthalene	µg/L	100.	10.	<0.20 U	<0.20 U	<0.25 U	<0.25 U	<0.15 U	<0.15 U
n-Butylbenzene	µg/L	--	--	<0.11 U	<0.11 U	<0.25 U	<0.25 U	<0.15 U	<0.15 U
n-Propylbenzene	µg/L	--	--	<0.11 U	<0.11 U	<0.25 U	<0.25 U	<0.20 U	<0.20 U
o-Xylene	µg/L	2000.	400.	<0.14 U	<0.14 U	<0.25 U	<0.25 U	<0.20 U	<0.20 U
p-Isopropyltoluene	µg/L	--	--	<0.15 U	<0.15 U	<0.3 U	<0.30 U	<0.20 U	<0.20 U
sec-Butylbenzene	µg/L	--	--	<0.12 U	<0.12 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U
Styrene	µg/L	100.	10.	<0.10 U	<0.10 U	<0.25 U	<0.25 U	<0.15 U	<0.15 U
tert-Butylbenzene	µg/L	--	--	<0.13 U	<0.13 U	<0.3 U	<0.30 U	<0.20 U	<0.20 U
Tetrachloroethene	µg/L	5.	0.05	<0.15 U	<0.15 U	<0.3 U	<0.30 U	<0.25 U	<0.25 U
Tetrahydrofuran	µg/L	50.	10.	<3.5 U	<3.5 U	<3 U	<3.0 U	<2.0 U	<2.0 U
Toluene	µg/L	800.	160.	<0.14 U	<0.14 U	<0.3 U	<0.30 U	<0.20 U	<0.20 U
trans-1,2-Dichloroethene	µg/L	100.	20.	7.	9.	5.1	9.4	9.2	10.
Trichloroethene	µg/L	5.	0.5	32.	50.	15.	54.	50.	78.
Vinyl acetate	µg/L	--	--	<3.0 U	<3.0 U	<2.5 U	<2.5 U	<1.1 U	<1.1 U
Vinyl chloride	µg/L	0.2	0.02	3.2	4.3	2.3	4.7	3.4	3.1

Table 3. Groundwater Quality Data, Oconomowoc Electroplating Company Inc. (OECI) Superfund Site Monitoring Wells

	Date Sampled			12/10/2014	5/5/2015	11/03/2015	5/11/2016	11/3/2016	5/12/2017
	Units	NR140 ES	NR140 PAL	MW-9S	MW-9S	MW-9S	MW-9S	MW-9S	MW-9S
Field Parameters									
Dissolved Oxygen (DO)	mg/L	--	--	0.79	0.00	0.43	0.00	0.14	0.01
Oxidation Reduction Potential	millivolts	--	--	14	-48	-37	-35	-61	-36
pH	pH-units	--	--	7.75	7.20	7.41	7.10	7.23	7.23
Specific Conductivity	umhos/cm	--	--	1230	1870	1680	1490	1400	1120
Temperature	deg-C	--	--	10.08	8.63	17.35	15.13	7.32	13.36
Turbidity	ntu	--	--	0.	12.4	0.	13.6	1.3	0.
Natural Attenuation Parameters									
Alkalinity, total (as CaCO ₃)	mg/L	--	--	330.	300.	340.	350.	360.	380.
Chloride (as Cl)	mg/L	250.	125.	380.	360.	340.	310.	260.	210.
Iron, total (unfiltered)	mg/L	--	--	0.635	2.	0.495	2.94	1.36	2.63
Iron, dissolved (filtered)	mg/L	0.3	0.15	0.221	1.	0.59	0.877	0.641	0.8
Manganese, total (unfiltered)	µg/L	--	--	57.1	80.5	73.7	73.5	71.8	147.
Manganese, dissolved (filtered)	µg/L	50.	25.	79.1	88.4	82.2	70.6	73.	123.
Acetylene	µg/L	--	--	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U
Ethane	µg/L	--	--	<0.60 U	<0.60 U	<0.9 U	<0.40 U	<0.40 U	<0.40 U
Ethene	µg/L	--	--	<0.90 U	<0.90 U	<1.2 U	<0.50 U	<0.50 U	<0.50 U
Methane	µg/L	--	--	4.3	5.5	6.3	21.	18.	2.2
Sulfate(as SO ₄)	mg/L	250.	125.	64.	57.	56.	59.	56.	52.
Total Organic Carbon	mg/L	--	--	1.4 J	1.6	1.2 J	2.8	1.8	3.2
VOCs									
1,1,1-Trichloroethane	µg/L	200.	40.	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
1,1-Dichloroethane	µg/L	850.	85.	0.19	0.17	0.2	0.16 J	0.15 J	0.17 J
1,1-Dichloroethene	µg/L	7.	0.7	<0.024 U	<0.024 U	<0.07 U	<0.070 U	<0.060 U	<0.060 U
1,2,3-Trichlorobenzene	µg/L	--	--	<0.040 U	<0.040 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
1,2,4-Trichlorobenzene	µg/L	70.	14.	<0.029 U	<0.029 U	<0.04 U	<0.040 U	<0.040 U	<0.040 U
1,2,4-Trimethylbenzene	µg/L	480.	96.	<0.024 U	<0.024 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
1,2-Dichlorobenzene	µg/L	600.	60.	<0.025 U	<0.025 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
1,2-Dichloroethane	µg/L	5.	0.5	<0.024 U	<0.024 U	<0.04 U	<0.040 U	<0.050 U	<0.050 U
1,3,5-Trimethylbenzene	µg/L	480.	96.	<0.022 U	<0.022 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
1,3-Dichlorobenzene	µg/L	600.	120.	<0.021 U	<0.021 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
1,4-Dioxane	µg/L	3.	0.3	NA	NA	NA	NA	<7.0 U	<7.0 U
2-Butanone (MEK)	µg/L	4000.	800.	<0.80 UY	<0.80 U	<0.8 U	<0.80 U	<0.50 U	<0.50 U
2-Chlorotoluene	µg/L	--	--	<0.025 U	<0.025 U	<0.06 U	<0.060 U	<0.030 U	<0.030 U
4-Chlorotoluene	µg/L	--	--	<0.029 U	<0.029 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
Acetone	µg/L	9000.	1800.	<1.3 UZ	<1.3 UZ	<0.9 U	<0.90 U	<0.30 U	0.37 JB
Benzene	µg/L	5.	0.5	<0.019 U	<0.019 U	<0.06 U	<0.060 U	<0.018 U	<0.018 U
Bromobenzene	µg/L	--	--	<0.030 U	<0.030 U	<0.04 U	<0.040 U	<0.040 U	<0.040 U
Chlorobenzene	µg/L	--	--	<0.024 U	<0.024 U	<0.04 U	<0.040 U	<0.040 U	<0.040 U
Chloroethane	µg/L	400.	80.	<0.040 U	<0.040 U	<0.06 U	<0.060 U	<0.070 U	<0.070 U
Chloromethane	µg/L	30.	3.	0.1 JB	<0.040 U	<0.05 U	<0.050 U	<0.040 U	0.062 J
cis-1,2-Dichloroethene	µg/L	70.	7.	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.070 U	<0.070 U
Ethylbenzene	µg/L	700.	140.	<0.019 U	<0.019 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
Hexachlorobutadiene	µg/L	--	--	<0.070 U	<0.070 U	<0.07 U	<0.070 U	<0.050 U	<0.050 U
Isopropylbenzene	µg/L	--	--	<0.060 U	<0.060 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
m & p-Xylene	µg/L	2000.	400.	<0.050 U	<0.050 U	<0.12 U	<0.12 U	<0.070 U	<0.070 U
Methyl tert-butyl ether	µg/L	60.	12.	<0.040 U	<0.040 U	<0.04 U	<0.040 U	<0.040 U	<0.040 U
Methylene chloride	µg/L	5.	0.5	<0.15 U	<0.15 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
Naphthalene	µg/L	100.	10.	<0.040 U	<0.040 U	<0.05 U	<0.050 U	<0.030 U	<0.030 U
n-Butylbenzene	µg/L	--	--	<0.021 U	<0.021 U	<0.05 U	<0.050 U	<0.030 U	<0.030 U
n-Propylbenzene	µg/L	--	--	<0.022 U	<0.022 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
o-Xylene	µg/L	2000.	400.	<0.027 U	<0.027 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
p-Isopropyltoluene	µg/L	--	--	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
sec-Butylbenzene	µg/L	--	--	<0.024 U	<0.024 U	<0.05 U	<0.050 U	<0.050 U	<0.050 U
Styrene	µg/L	100.	10.	<0.020 U	<0.020 U	<0.05 U	<0.050 U	<0.030 U	<0.030 U
tert-Butylbenzene	µg/L	--	--	<0.025 U	<0.025 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
Tetrachloroethene	µg/L	5.	0.05	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
Tetrahydrofuran	µg/L	50.	10.	<0.70 UY	<0.70 U	<0.6 U	<0.60 U	<0.40 U	<0.40 U
Toluene	µg/L	800.	160.	<0.027 U	<0.027 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
trans-1,2-Dichloroethene	µg/L	100.	20.	<0.040 U	<0.040 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
Trichloroethene	µg/L	5.	0.5	0.15	0.18	0.24	0.18	0.17	0.16 J
Vinyl acetate	µg/L	--	--	<0.60 U	<0.60 U	<0.5 U	<0.50 U	<0.22 U	<0.22 U
Vinyl chloride	µg/L	0.2	0.02	<0.019 U	<0.019 U	<0.016 U	<0.016 U	<0.019 U	<0.019 U

Table 3. Groundwater Quality Data, Oconomowoc Electroplating Company Inc. (OECI) Superfund Site Monitoring Wells

	Date Sampled			12/11/2014	5/6/2015	11/05/2015	5/11/2016	11/1/2016	5/9/2017
	Units	NR140 ES	NR140 PAL	MW-12S	MW-12S	MW-12S	MW-12S	MW-12S	MW-12S
Field Parameters									
Dissolved Oxygen (DO)	mg/L	--	--	8.69	0.00	1.12	0.00	0.00	1.05
Oxidation Reduction Potential	millivolts	--	--	-50	16	-21	30	24	55
pH	pH-units	--	--	7.80	7.32	6.99	7.14	6.90	7.45
Specific Conductivity	umhos/cm	--	--	1070	1050	920	1230	1020	1620
Temperature	deg-C	--	--	6.75	7.11	14.00	12.03	12.18	7.65
Turbidity	ntu	--	--	42.7	18.2	36.3	12.	0.	26.2
Natural Attenuation Parameters									
Alkalinity, total (as CaCO ₃)	mg/L	--	--	370.	350.	380.	380.	390.	410.
Chloride (as Cl)	mg/L	250.	125.	220.	210.	180.	220.	230.	210.
Iron, total (unfiltered)	mg/L	--	--	0.49	0.266	1.19	0.172	0.139	0.0994 J
Iron, dissolved (filtered)	mg/L	0.3	0.15	0.077	<0.010 U	0.109	<0.010 U	<0.059 U	<0.059 U
Manganese, total (unfiltered)	µg/L	--	--	127.	132.	165.	117.	137.	118.
Manganese, dissolved (filtered)	µg/L	50.	25.	115.	117.	132.	104.	139.	67.1
Acetylene	µg/L	--	--	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 UY	<0.23 U
Ethane	µg/L	--	--	<0.60 U	<0.60 U	<0.9 U	<0.40 U	<0.40 U	<0.40 U
Ethene	µg/L	--	--	<0.90 U	<0.90 U	<1.2 U	<0.50 U	<0.50 U	<0.50 U
Methane	µg/L	--	--	11.	9.4	7.5	18.	6.9 M	1.2
Sulfate(as SO ₄)	mg/L	250.	125.	55.	54.	51.	59.	50.	49.
Total Organic Carbon	mg/L	--	--	2.5	1.8	0.89 J	3.2	2.4	3.
VOCs									
1,1,1-Trichloroethane	µg/L	200.	40.	51.	41.	36.	29.	32.	35.
1,1-Dichloroethane	µg/L	850.	85.	14.	18.	6.6	12.	14.	13.
1,1-Dichloroethene	µg/L	7.	0.7	5.7	7.2	3.	4.4	5.1	5.2
1,2,3-Trichlorobenzene	µg/L	--	--	<0.20 U	<0.20 U	<0.25 U	<0.25 U	<0.20 U	<0.20 U
1,2,4-Trichlorobenzene	µg/L	70.	14.	<0.15 U	<0.15 U	<0.2 U	<0.20 U	<0.20 U	<0.20 U
1,2,4-Trimethylbenzene	µg/L	480.	96.	<0.12 U	<0.12 U	<0.25 U	<0.25 U	<0.20 U	<0.20 U
1,2-Dichlorobenzene	µg/L	600.	60.	<0.13 U	<0.13 U	<0.3 U	<0.30 U	<0.20 U	<0.20 U
1,2-Dichloroethane	µg/L	5.	0.5	<0.12 U	<0.12 U	<0.2 U	<0.20 U	<0.25 U	<0.25 U
1,3,5-Trimethylbenzene	µg/L	480.	96.	<0.11 U	<0.11 U	<0.3 U	<0.30 U	<0.25 U	<0.25 U
1,3-Dichlorobenzene	µg/L	600.	120.	<0.11 U	<0.11 U	<0.3 U	<0.30 U	<0.20 U	<0.20 U
1,4-Dioxane	µg/L	3.	0.3	NA	NA	NA	NA	<35 U	<35 U
2-Butanone (MEK)	µg/L	4000.	800.	<4.0 U	<4.0 U	<4 U	<4.0 U	<2.5 U	<2.5 U
2-Chlorotoluene	µg/L	--	--	<0.13 U	<0.13 U	<0.3 U	<0.30 U	<0.15 U	<0.15 U
4-Chlorotoluene	µg/L	--	--	<0.15 U	<0.15 U	<0.25 U	<0.25 U	<0.20 U	<0.20 U
Acetone	µg/L	9000.	1800.	<6.5 UZ	<6.5 UZ	<4.5 U	100 B	2.4 JB	4.8 JB
Benzene	µg/L	5.	0.5	<0.095 U	<0.095 U	<0.3 U	<0.30 U	0.098 J	<0.090 U
Bromobenzene	µg/L	--	--	<0.15 U	<0.15 U	<0.2 U	<0.20 U	<0.20 U	<0.20 U
Chlorobenzene	µg/L	--	--	<0.12 U	<0.12 U	<0.2 U	<0.20 U	<0.20 U	<0.20 U
Chloroethane	µg/L	400.	80.	<0.20 U	<0.20 U	<0.3 U	<0.30 U	<0.35 U	<0.35 U
Chloromethane	µg/L	30.	3.	<0.20 U	<0.20 U	<0.25 U	<0.25 U	<0.20 U	<0.20 U
cis-1,2-Dichloroethene	µg/L	70.	7.	49.	16.	24.	22.	20.	26.
Ethylbenzene	µg/L	700.	140.	<0.095 U	<0.095 U	<0.3 U	<0.30 U	<0.20 U	<0.20 U
Hexachlorobutadiene	µg/L	--	--	<0.35 U	<0.35 U	<0.35 U	<0.35 U	<0.25 U	<0.25 U
Isopropylbenzene	µg/L	--	--	<0.30 U	<0.30 U	<0.25 U	<0.25 U	<0.20 U	<0.20 U
m & p-Xylene	µg/L	2000.	400.	<0.25 U	<0.25 U	<0.6 U	<0.60 U	<0.35 U	<0.35 U
Methyl tert-butyl ether	µg/L	60.	12.	<0.20 U	<0.20 U	<0.2 U	<0.20 U	<0.20 U	<0.20 U
Methylene chloride	µg/L	5.	0.5	1.3 J	<0.75 U	<0.3 U	1.4	1.5	2.7
Naphthalene	µg/L	100.	10.	<0.20 U	<0.20 U	<0.25 U	<0.25 U	<0.15 U	<0.15 U
n-Butylbenzene	µg/L	--	--	<0.11 U	<0.11 U	<0.25 U	<0.25 U	<0.15 U	<0.15 U
n-Propylbenzene	µg/L	--	--	<0.11 U	<0.11 U	<0.25 U	<0.25 U	<0.20 U	<0.20 U
o-Xylene	µg/L	2000.	400.	<0.14 U	<0.14 U	<0.25 U	<0.25 U	<0.20 U	<0.20 U
p-Isopropyltoluene	µg/L	--	--	<0.15 U	<0.15 U	<0.3 U	<0.30 U	<0.20 U	<0.20 U
sec-Butylbenzene	µg/L	--	--	<0.12 U	<0.12 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U
Styrene	µg/L	100.	10.	<0.10 U	<0.10 U	<0.25 U	<0.25 U	<0.15 U	<0.15 U
tert-Butylbenzene	µg/L	--	--	<0.13 U	<0.13 U	<0.3 U	<0.30 U	<0.20 U	<0.20 U
Tetrachloroethene	µg/L	5.	0.05	<0.15 U	<0.15 U	<0.3 U	<0.30 U	<0.25 U	<0.25 U
Tetrahydrofuran	µg/L	50.	10.	<3.5 U	<3.5 U	<3.0 U	<3.0 U	<2.0 U	<2.0 U
Toluene	µg/L	800.	160.	<0.14 U	<0.14 U	<0.3 U	<0.30 U	<0.20 U	<0.20 U
trans-1,2-Dichloroethene	µg/L	100.	20.	9.5	10.	7.1	6.8	7.	6.8
Trichloroethene	µg/L	5.	0.5	39.	72.	54.	48.	61.	64.
Vinyl acetate	µg/L	--	--	<3.0 U	<3.0 U	<2.5 U	<2.5 U	<1.1 U	<1.1 U
Vinyl chloride	µg/L	0.2	0.02	1.7	0.39	1.9	0.79	0.57	0.52

Table 3. Groundwater Quality Data, Oconomowoc Electroplating Company Inc. (OECI) Superfund Site Monitoring Wells

	Date Sampled			12/11/2014	5/6/2015	11/05/2015	5/11/2016	11/1/2016	5/9/2017
	Units	NR140 ES	NR140 PAL	MW-12D	MW-12D	MW-12D	MW-12D	MW-12D	MW-12D
Field Parameters									
Dissolved Oxygen (DO)	mg/L	--	--	6.46	0.00	4.79	0.00	0.39	0.22
Oxidation Reduction Potential	millivolts	--	--	-82	-70	-88	49	-92	-34
pH	pH-units	--	--	7.53	7.31	7.00	7.26	6.98	7.44
Specific Conductivity	umhos/cm	--	--	1200	1060	974	1190	1150	1370
Temperature	deg-C	--	--	7.90	8.68	15.02	16.52	9.37	9.62
Turbidity	ntu	--	--	0.	1.4	2.2	0.3	0.	0.
Natural Attenuation Parameters									
Alkalinity, total (as CaCO ₃)	mg/L	--	--	390.	370.	410.	400.	410.	410.
Chloride (as Cl)	mg/L	250.	125.	260 M	210.	200.	220.	200.	180.
Iron, total (unfiltered)	mg/L	--	--	1.26	0.967	1.35	0.906	2.53	1.22
Iron, dissolved (filtered)	mg/L	0.3	0.15	0.969	0.843	1.13	0.873	0.919	0.906
Manganese, total (unfiltered)	µg/L	--	--	29.7	31.9	39.	29.5	40.3	30.3
Manganese, dissolved (filtered)	µg/L	50.	25.	33.1	29.9	32.7	29.1	35.5	<2.2 U
Acetylene	µg/L	--	--	<0.23 U	<0.46 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U
Ethane	µg/L	--	--	<0.60 U	<1.2 U	<0.9 U	<0.40 U	<0.40 U	<0.40 U
Ethene	µg/L	--	--	<0.90 U	<1.8 U	<1.2 U	<0.50 U	<0.50 U	<0.50 U
Methane	µg/L	--	--	36.	27.	27.	32.	2.9	1.7
Sulfate(as SO ₄)	mg/L	250.	125.	67.	60.	59.	58.	51.	54.
Total Organic Carbon	mg/L	--	--	3.1	2.	1.7	3.	2.4	2.9
VOCs									
1,1,1-Trichloroethane	µg/L	200.	40.	0.76	0.53	0.57	0.33	0.3	0.29
1,1-Dichloroethane	µg/L	850.	85.	10.	7.4	9.2	5.8	4.8	4.6
1,1-Dichloroethene	µg/L	7.	0.7	0.46	0.28	0.41	0.18 J	0.15 J	0.12 J
1,2,3-Trichlorobenzene	µg/L	--	--	<0.040 U	<0.040 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
1,2,4-Trichlorobenzene	µg/L	70.	14.	<0.029 U	<0.029 U	<0.04 U	<0.040 U	<0.040 U	<0.040 U
1,2,4-Trimethylbenzene	µg/L	480.	96.	<0.024 U	<0.024 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
1,2-Dichlorobenzene	µg/L	600.	60.	<0.025 U	<0.025 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
1,2-Dichloroethane	µg/L	5.	0.5	0.061 J	0.052 J	0.062 J	<0.040 U	<0.050 U	<0.050 U
1,3,5-Trimethylbenzene	µg/L	480.	96.	<0.022 U	<0.022 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
1,3-Dichlorobenzene	µg/L	600.	120.	0.084	0.038 J	<0.06 U	<0.060 U	<0.040 U	<0.040 U
1,4-Dioxane	µg/L	3.	0.3	NA	NA	NA	NA	<7.0 U	<7.0 U
2-Butanone (MEK)	µg/L	4000.	800.	<0.80 U	<0.80 U	<0.8 U	<0.80 U	<0.50 U	<0.50 U
2-Chlorotoluene	µg/L	--	--	<0.025 U	<0.025 U	<0.06 U	<0.060 U	<0.030 U	<0.030 U
4-Chlorotoluene	µg/L	--	--	<0.029 U	<0.029 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
Acetone	µg/L	9000.	1800.	<1.3 UZ	<1.3 UZ	<0.9 U	<0.90 U	<0.30 U	0.57 JB
Benzene	µg/L	5.	0.5	<0.019 U	<0.019 U	<0.06 U	<0.060 U	<0.018 U	<0.018 U
Bromobenzene	µg/L	--	--	<0.030 U	<0.030 U	<0.04 U	<0.040 U	<0.040 U	<0.040 U
Chlorobenzene	µg/L	--	--	<0.024 U	<0.024 U	<0.04 U	<0.040 U	<0.040 U	<0.040 U
Chloroethane	µg/L	400.	80.	0.073 J	0.12 J	0.35	0.53	<0.070 U	0.29
Chloromethane	µg/L	30.	3.	0.078 JB	<0.040 U	<0.05 U	<0.050 U	<0.040 U	0.091 JB
cis-1,2-Dichloroethene	µg/L	70.	7.	6.9	5.7	6.7	5.4	5.3	6.3
Ethylbenzene	µg/L	700.	140.	<0.019 U	<0.019 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
Hexachlorobutadiene	µg/L	--	--	<0.070 U	<0.070 U	<0.07 U	<0.070 U	<0.050 U	<0.050 U
Isopropylbenzene	µg/L	--	--	<0.060 U	<0.060 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
m & p-Xylene	µg/L	2000.	400.	<0.050 U	<0.050 U	<0.12 U	<0.12 U	<0.070 U	<0.070 U
Methyl tert-butyl ether	µg/L	60.	12.	0.41	0.48	0.47	0.59	0.58	0.64
Methylene chloride	µg/L	5.	0.5	<0.15 U	<0.15 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
Naphthalene	µg/L	100.	10.	<0.040 U	<0.040 U	<0.05 U	<0.050 U	<0.030 U	<0.030 U
n-Butylbenzene	µg/L	--	--	<0.021 U	<0.021 U	<0.05 U	<0.050 U	<0.030 U	<0.030 U
n-Propylbenzene	µg/L	--	--	<0.022 U	<0.022 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
o-Xylene	µg/L	2000.	400.	<0.027 U	<0.027 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
p-Isopropyltoluene	µg/L	--	--	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
sec-Butylbenzene	µg/L	--	--	<0.024 U	<0.024 U	<0.05 U	<0.050 U	<0.050 U	<0.050 U
Styrene	µg/L	100.	10.	<0.020 U	<0.020 U	<0.05 U	<0.050 U	<0.030 U	<0.030 U
tert-Butylbenzene	µg/L	--	--	<0.025 U	<0.025 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
Tetrachloroethene	µg/L	5.	0.05	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
Tetrahydrofuran	µg/L	50.	10.	<0.70 U	<0.70 U	<0.6 U	0.68 JB,Z	<0.40 U	<0.40 U
Toluene	µg/L	800.	160.	<0.027 U	<0.027 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
trans-1,2-Dichloroethene	µg/L	100.	20.	0.82	0.76	0.76	0.5	0.44	0.4
Trichloroethene	µg/L	5.	0.5	0.11	0.12	0.11	0.1	0.1 J	0.11 J
Vinyl acetate	µg/L	--	--	<0.60 U	<0.60 U	<0.5 U	<0.50 U	<0.22 U	<0.22 U
Vinyl chloride	µg/L	0.2	0.02	0.69	0.55	0.91	0.8	0.62	0.79

Table 3. Groundwater Quality Data, Oconomowoc Electroplating Company Inc. (OECI) Superfund Site Monitoring Wells

	Date Sampled			12/11/2014	5/6/2015	11/05/2015	5/11/2016	11/1/2016	5/9/2017
	Units	NR140 ES	NR140 PAL	MW-12B	MW-12B	MW-12B	MW-12B	MW-12B	MW-12B
Field Parameters									
Dissolved Oxygen (DO)	mg/L	--	--	0.40	2.03	0.22	0.93	0.79	0.70
Oxidation Reduction Potential	millivolts	--	--	-153	51	-179	163	-190	-75
pH	pH-units	--	--	8.58	8.54	7.79	8.39	7.77	8.27
Specific Conductivity	umhos/cm	--	--	804	712	650	910	879	1040
Temperature	deg-C	--	--	7.55	10.02	16.61	12.46	9.29	10.84
Turbidity	ntu	--	--	0.	0.	0.	0.	0.	0.
Natural Attenuation Parameters									
Alkalinity, total (as CaCO ₃)	mg/L	--	--	280.	270.	320.	310.	340.	340.
Chloride (as Cl)	mg/L	250.	125.	150.	130.	130.	140.	140.	140.
Iron, total (unfiltered)	mg/L	--	--	0.229	0.042 J	0.355	<0.020 U	0.394	0.268
Iron, dissolved (filtered)	mg/L	0.3	0.15	0.149	<0.010 U	0.32	<0.010 U	0.385	0.226
Manganese, total (unfiltered)	µg/L	--	--	3.5 J	1.9 J	17.7	1.4 J	19.5	12.2
Manganese, dissolved (filtered)	µg/L	50.	25.	6.5	<1.6 U	12.9	<1.6 U	20.6	<2.2 U
Acetylene	µg/L	--	--	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U
Ethane	µg/L	--	--	<0.60 U	<0.60 U	<0.9 U	<0.40 U	<0.40 U	<0.40 U
Ethene	µg/L	--	--	<0.90 U	<0.90 U	<1.2 U	<0.50 U	<0.50 U	<0.50 U
Methane	µg/L	--	--	8.4	0.31 J	15.	3.	12.	2.2
Sulfate(as SO ₄)	mg/L	250.	125.	31.	29.	29.	30.	30.	30.
Total Organic Carbon	mg/L	--	--	0.86 J	0.47 J	<0.4 U	0.75 J	1 J	1.2 J
VOCs									
1,1,1-Trichloroethane	µg/L	200.	40.	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
1,1-Dichloroethane	µg/L	850.	85.	<0.024 U	<0.024 U	<0.06 U	<0.060 U	<0.060 U	<0.060 U
1,1-Dichloroethene	µg/L	7.	0.7	<0.024 U	<0.024 U	<0.07 U	<0.070 U	<0.060 U	<0.060 U
1,2,3-Trichlorobenzene	µg/L	--	--	<0.040 U	<0.040 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
1,2,4-Trichlorobenzene	µg/L	70.	14.	<0.029 U	<0.029 U	<0.04 U	<0.040 U	<0.040 U	<0.040 U
1,2,4-Trimethylbenzene	µg/L	480.	96.	<0.024 U	<0.024 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
1,2-Dichlorobenzene	µg/L	600.	60.	<0.025 U	<0.025 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
1,2-Dichloroethane	µg/L	5.	0.5	<0.024 U	<0.024 U	<0.04 U	<0.040 U	<0.050 U	<0.050 U
1,3,5-Trimethylbenzene	µg/L	480.	96.	<0.022 U	<0.022 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
1,3-Dichlorobenzene	µg/L	600.	120.	0.12	0.038 J	<0.06 U	<0.060 U	<0.040 U	<0.040 U
1,4-Dioxane	µg/L	3.	0.3	NA	NA	NA	NA	<7.0 U	<7.0 U
2-Butanone (MEK)	µg/L	4000.	800.	<0.80 U	<0.80 U	<0.8 U	<0.80 U	<0.50 U	<0.50 U
2-Chlorotoluene	µg/L	--	--	<0.025 U	<0.025 U	<0.06 U	<0.060 U	<0.030 U	<0.030 U
4-Chlorotoluene	µg/L	--	--	<0.029 U	<0.029 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
Acetone	µg/L	9000.	1800.	<1.3 UZ	<1.3 UZ	<0.9 U	<0.90 U	<0.30 U	0.39 JB
Benzene	µg/L	5.	0.5	<0.019 U	<0.019 U	<0.06 U	<0.060 U	<0.018 U	<0.018 U
Bromobenzene	µg/L	--	--	<0.030 U	<0.030 U	<0.04 U	<0.040 U	<0.040 U	<0.040 U
Chlorobenzene	µg/L	--	--	<0.024 U	<0.024 U	<0.04 U	<0.040 U	<0.040 U	<0.040 U
Chloroethane	µg/L	400.	80.	<0.040 U	<0.040 U	<0.06 U	<0.060 U	<0.070 U	<0.070 U
Chloromethane	µg/L	30.	3.	0.1 JB	<0.040 U	<0.05 U	<0.050 U	<0.040 U	0.063 JB
cis-1,2-Dichloroethene	µg/L	70.	7.	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.070 U	<0.070 U
Ethylbenzene	µg/L	700.	140.	<0.019 U	<0.019 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
Hexachlorobutadiene	µg/L	--	--	<0.070 U	<0.070 U	<0.07 U	<0.070 U	<0.050 U	<0.050 U
Isopropylbenzene	µg/L	--	--	<0.060 U	<0.060 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
m & p-Xylene	µg/L	2000.	400.	<0.050 U	<0.050 U	<0.12 U	<0.12 U	<0.070 U	<0.070 U
Methyl tert-butyl ether	µg/L	60.	12.	<0.040 U	<0.040 U	<0.04 U	<0.040 U	<0.040 U	<0.040 U
Methylene chloride	µg/L	5.	0.5	<0.15 U	<0.15 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
Naphthalene	µg/L	100.	10.	<0.040 U	<0.040 U	<0.05 U	<0.050 U	<0.030 U	<0.030 U
n-Butylbenzene	µg/L	--	--	<0.021 U	<0.021 U	<0.05 U	<0.050 U	<0.030 U	<0.030 U
n-Propylbenzene	µg/L	--	--	<0.022 U	<0.022 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
o-Xylene	µg/L	2000.	400.	<0.027 U	<0.027 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
p-Isopropyltoluene	µg/L	--	--	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
sec-Butylbenzene	µg/L	--	--	<0.024 U	<0.024 U	<0.05 U	<0.050 U	<0.050 U	<0.050 U
Styrene	µg/L	100.	10.	<0.020 U	<0.020 U	<0.05 U	<0.050 U	<0.030 U	<0.030 U
tert-Butylbenzene	µg/L	--	--	<0.025 U	<0.025 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
Tetrachloroethene	µg/L	5.	0.05	0.065 J	<0.030 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
Tetrahydrofuran	µg/L	50.	10.	<0.70 U	<0.70 U	<0.6 U	<0.60 U	<0.40 U	<0.40 U
Toluene	µg/L	800.	160.	<0.027 U	<0.027 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
trans-1,2-Dichloroethene	µg/L	100.	20.	<0.040 U	<0.040 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
Trichloroethene	µg/L	5.	0.5	0.022 J	<0.020 U	<0.03 U	<0.030 U	<0.050 U	<0.050 U
Vinyl acetate	µg/L	--	--	<0.60 U	<0.60 U	<0.5 U	<0.50 U	<0.22 U	<0.22 U
Vinyl chloride	µg/L	0.2	0.02	<0.019 U	<0.019 U	<0.016 U	<0.016 U	<0.019 U	<0.019 U

Table 3. Groundwater Quality Data, Oconomowoc Electroplating Company Inc. (OECI) Superfund Site Monitoring Wells

	Date Sampled			12/11/2014	5/6/2015	11/05/2015	5/13/2016	11/1/2016	5/9/2017
	Units	NR140 ES	NR140 PAL	MW-13S	MW-13S	MW-13S	MW-13S	MW-13S	MW-13S
Field Parameters									
Dissolved Oxygen (DO)	mg/L	--	--	10.09	5.81	1.87	3.78	4.08	4.41
Oxidation Reduction Potential	millivolts	--	--	4	91	22	130	126	203
pH	pH-units	--	--	7.61	7.52	7.08	7.35	6.74	7.51
Specific Conductivity	umhos/cm	--	--	865	599	706	832	755	1090
Temperature	deg-C	--	--	5.48	10.34	14.19	12.29	12.90	11.62
Turbidity	ntu	--	--	113.	11.3	9.	30.2	0.	62.
Natural Attenuation Parameters									
Alkalinity, total (as CaCO ₃)	mg/L	--	--	310.	260.	320.	310.	330.	350.
Chloride (as Cl)	mg/L	250.	125.	170.	70.	140.	120.	130.	150.
Iron, total (unfiltered)	mg/L	--	--	2.74	0.688	0.734	2.	5.16	9.04
Iron, dissolved (filtered)	mg/L	0.3	0.15	0.0768	<0.010 U	0.111	0.0982	0.118 J	0.128 J
Manganese, total (unfiltered)	µg/L	--	--	45.3	7.8	24.8	28.3	62.	36800.
Manganese, dissolved (filtered)	µg/L	50.	25.	13.9	7.8	13.4	10.	13.9	<2.2 U
Acetylene	µg/L	--	--	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U
Ethane	µg/L	--	--	<0.60 U	<0.60 U	<0.9 U	<0.40 U	<0.40 U	<0.40 U
Ethene	µg/L	--	--	<0.90 U	<0.90 U	<1.2 U	<0.50 U	<0.50 U	<0.50 U
Methane	µg/L	--	--	0.3 J	<0.30 U	<0.4 U	<0.40 U	0.43 J	<0.40 U
Sulfate(as SO ₄)	mg/L	250.	125.	18.	13.	16.	17.	17.	23.
Total Organic Carbon	mg/L	--	--	6.7	2.3	<0.4 U	2.9	1.6 J	2.6
VOCs									
1,1,1-Trichloroethane	µg/L	200.	40.	0.063 J	0.033 J	0.1 J	<0.060 U	0.11 J	0.051 J
1,1-Dichloroethane	µg/L	850.	85.	0.057 J	0.056 J	<0.06 U	<0.060 U	0.072 J	<0.060 U
1,1-Dichloroethene	µg/L	7.	0.7	<0.024 U	<0.024 U	<0.07 U	<0.070 U	<0.060 U	<0.060 U
1,2,3-Trichlorobenzene	µg/L	--	--	<0.040 U	<0.040 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
1,2,4-Trichlorobenzene	µg/L	70.	14.	<0.029 U	<0.029 U	<0.04 U	<0.040 U	<0.040 U	<0.040 U
1,2,4-Trimethylbenzene	µg/L	480.	96.	<0.024 U	<0.024 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
1,2-Dichlorobenzene	µg/L	600.	60.	<0.025 U	<0.025 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
1,2-Dichloroethane	µg/L	5.	0.5	<0.024 U	<0.024 U	<0.04 U	<0.040 U	<0.050 U	<0.050 U
1,3,5-Trimethylbenzene	µg/L	480.	96.	<0.022 U	<0.022 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
1,3-Dichlorobenzene	µg/L	600.	120.	0.14	0.03 J	<0.06 U	<0.060 U	<0.040 U	<0.040 U
1,4-Dioxane	µg/L	3.	0.3	NA	NA	NA	NA	<7.0 U	<7.0 U
2-Butanone (MEK)	µg/L	4000.	800.	<0.80 U	<0.80 U	<0.8 U	<0.80 U	<0.50 U	<0.50 U
2-Chlorotoluene	µg/L	--	--	<0.025 U	<0.025 U	<0.06 U	<0.060 U	<0.030 U	<0.030 U
4-Chlorotoluene	µg/L	--	--	<0.029 U	<0.029 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
Acetone	µg/L	9000.	1800.	<1.3 UZ	<1.3 UZ	<0.9 U	<0.90 U	<0.30 U	0.52 JB
Benzene	µg/L	5.	0.5	<0.019 U	<0.019 U	<0.06 U	<0.060 U	<0.018 U	<0.018 U
Bromobenzene	µg/L	--	--	<0.030 U	<0.030 U	<0.04 U	<0.040 U	<0.040 U	<0.040 U
Chlorobenzene	µg/L	--	--	<0.024 U	<0.024 U	<0.04 U	<0.040 U	<0.040 U	<0.040 U
Chloroethane	µg/L	400.	80.	<0.040 U	<0.040 U	<0.06 U	<0.060 U	<0.070 U	<0.070 U
Chloromethane	µg/L	30.	3.	0.082 JB	<0.040 U	<0.05 U	<0.050 U	<0.040 U	0.14 B
cis-1,2-Dichloroethene	µg/L	70.	7.	0.045 J	0.13	0.16 J	<0.060 U	0.25	1.
Ethylbenzene	µg/L	700.	140.	<0.019 U	<0.019 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
Hexachlorobutadiene	µg/L	--	--	<0.070 U	<0.070 U	<0.07 U	<0.070 U	<0.050 U	<0.050 U
Isopropylbenzene	µg/L	--	--	<0.060 U	<0.060 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
m & p-Xylene	µg/L	2000.	400.	<0.050 U	<0.050 U	<0.12 U	<0.12 U	<0.070 U	<0.070 U
Methyl tert-butyl ether	µg/L	60.	12.	<0.040 U	<0.040 U	<0.04 U	<0.040 U	<0.040 U	<0.040 U
Methylene chloride	µg/L	5.	0.5	<0.15 U	<0.15 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
Naphthalene	µg/L	100.	10.	<0.040 U	<0.040 U	<0.05 U	<0.050 U	<0.030 U	<0.030 U
n-Butylbenzene	µg/L	--	--	<0.021 U	<0.021 U	<0.05 U	<0.050 U	<0.030 U	<0.030 U
n-Propylbenzene	µg/L	--	--	<0.022 U	<0.022 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
o-Xylene	µg/L	2000.	400.	<0.027 U	<0.027 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
p-Isopropyltoluene	µg/L	--	--	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
sec-Butylbenzene	µg/L	--	--	<0.024 U	<0.024 U	<0.05 U	<0.050 U	<0.050 U	<0.050 U
Styrene	µg/L	100.	10.	<0.020 U	<0.020 U	<0.05 U	<0.050 U	<0.030 U	<0.030 U
tert-Butylbenzene	µg/L	--	--	<0.025 U	<0.025 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
Tetrachloroethene	µg/L	5.	0.05	0.035 J	0.032 J	0.064 J	<0.060 U	0.097 J	0.054 J
Tetrahydrofuran	µg/L	50.	10.	<0.70 U	<0.70 U	<0.6 U	<0.60 U	<0.40 U	<0.40 U
Toluene	µg/L	800.	160.	<0.027 U	<0.027 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
trans-1,2-Dichloroethene	µg/L	100.	20.	<0.040 U	<0.040 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
Trichloroethene	µg/L	5.	0.5	0.11	0.037 J	0.13	0.051 J	0.18	<0.050 U
Vinyl acetate	µg/L	--	--	<0.60 U	<0.60 U	<0.5 U	<0.50 U	<0.22 U	<0.22 U
Vinyl chloride	µg/L	0.2	0.02	<0.019 U	<0.019 U	<0.016 U	<0.016 U	<0.019 U	<0.019 U

Table 3. Groundwater Quality Data, Oconomowoc Electroplating Company Inc. (OECI) Superfund Site Monitoring Wells

	Date Sampled			12/11/2014	5/6/2015	11/05/2015	5/13/2016	11/1/2016	5/9/2017
	Units	NR140 ES	NR140 PAL	MW-13D	MW-13D	MW-13D	MW-13D	MW-13D	MW-13D
Field Parameters									
Dissolved Oxygen (DO)	mg/L	--	--	2.21	0.00	0.20	0.00	0.19	0.65
Oxidation Reduction Potential	millivolts	--	--	-72	-62	-74	-56	-83	-37
pH	pH-units	--	--	7.57	7.42	7.02	7.20	7.05	7.55
Specific Conductivity	umhos/cm	--	--	1070	967	908	1140	1070	1370
Temperature	deg-C	--	--	7.53	11.59	14.52	11.41	8.58	9.83
Turbidity	ntu	--	--	0.	0.1	2.4	116.	0.	163.
Natural Attenuation Parameters									
Alkalinity, total (as CaCO ₃)	mg/L	--	--	350.	340.	380.	360.	380.	390.
Chloride (as Cl)	mg/L	250.	125.	230.	190.	180.	190.	170.	170.
Iron, total (unfiltered)	mg/L	--	--	1.79	0.772	1.21	28.5	1.42	12.8
Iron, dissolved (filtered)	mg/L	0.3	0.15	0.898	0.67	0.801	0.814	0.753	0.736
Manganese, total (unfiltered)	µg/L	--	--	31.7	31.8	38.6	3.62	33.	28.1
Manganese, dissolved (filtered)	µg/L	50.	25.	31.9	27.	34.3	29.7	31.9	<2.2 U
Acetylene	µg/L	--	--	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U
Ethane	µg/L	--	--	<0.60 U	<0.60 U	<0.9 U	<0.40 U	<0.40 U	<0.40 U
Ethene	µg/L	--	--	<0.90 U	<0.90 U	<1.2 U	<0.50 U	<0.50 U	<0.50 U
Methane	µg/L	--	--	21.	18.	20.	28.	24.	7.1
Sulfate(as SO ₄)	mg/L	250.	125.	64.	52.	50.	49.	46.	45.
Total Organic Carbon	mg/L	--	--	9.5	2.	0.45 J	1.8	1.6 J	2.1
VOCs									
1,1,1-Trichloroethane	µg/L	200.	40.	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
1,1-Dichloroethane	µg/L	850.	85.	<0.024 U	<0.024 U	<0.06 U	<0.060 U	<0.060 U	<0.060 U
1,1-Dichloroethene	µg/L	7.	0.7	<0.024 U	<0.024 U	<0.07 U	<0.070 U	<0.060 U	<0.060 U
1,2,3-Trichlorobenzene	µg/L	--	--	<0.040 U	<0.040 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
1,2,4-Trichlorobenzene	µg/L	70.	14.	<0.029 U	<0.029 U	<0.04 U	<0.040 U	<0.040 U	<0.040 U
1,2,4-Trimethylbenzene	µg/L	480.	96.	<0.024 U	<0.024 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
1,2-Dichlorobenzene	µg/L	600.	60.	<0.025 U	<0.025 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
1,2-Dichloroethane	µg/L	5.	0.5	<0.024 U	<0.024 U	<0.04 U	<0.040 U	<0.050 U	<0.050 U
1,3,5-Trimethylbenzene	µg/L	480.	96.	<0.022 U	<0.022 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
1,3-Dichlorobenzene	µg/L	600.	120.	0.14	<0.021 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
1,4-Dioxane	µg/L	3.	0.3	NA	NA	NA	NA	<7.0 U	<7.0 U
2-Butanone (MEK)	µg/L	4000.	800.	<0.80 U	<0.80 U	<0.8 U	<0.80 U	<0.50 U	<0.50 U
2-Chlorotoluene	µg/L	--	--	<0.025 U	<0.025 U	<0.06 U	<0.060 U	<0.030 U	<0.030 U
4-Chlorotoluene	µg/L	--	--	<0.029 U	<0.029 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
Acetone	µg/L	9000.	1800.	<1.3 UZ	<1.3 UZ	<0.9 U	<0.90 U	<0.30 U	0.46 JB
Benzene	µg/L	5.	0.5	<0.019 U	<0.019 U	<0.06 U	<0.060 U	<0.018 U	<0.018 U
Bromobenzene	µg/L	--	--	<0.030 U	<0.030 U	<0.04 U	<0.040 U	<0.040 U	<0.040 U
Chlorobenzene	µg/L	--	--	<0.024 U	<0.024 U	<0.04 U	<0.040 U	<0.040 U	<0.040 U
Chloroethane	µg/L	400.	80.	<0.040 U	<0.040 U	<0.06 U	<0.060 U	<0.070 U	<0.070 U
Chloromethane	µg/L	30.	3.	0.087 JB	<0.040 U	<0.05 U	<0.050 U	<0.040 U	0.099 JB
cis-1,2-Dichloroethene	µg/L	70.	7.	1.5	1.4	1.7	1.6	1.7	2.
Ethylbenzene	µg/L	700.	140.	<0.019 U	<0.019 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
Hexachlorobutadiene	µg/L	--	--	<0.070 U	<0.070 U	<0.07 U	<0.070 U	<0.050 U	<0.050 U
Isopropylbenzene	µg/L	--	--	<0.060 U	<0.060 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
m & p-Xylene	µg/L	2000.	400.	<0.050 U	<0.050 U	<0.12 U	<0.12 U	<0.070 U	<0.070 U
Methyl tert-butyl ether	µg/L	60.	12.	0.44	0.45	0.49	0.53	0.52	0.57
Methylene chloride	µg/L	5.	0.5	<0.15 U	<0.15 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
Naphthalene	µg/L	100.	10.	<0.040 U	<0.040 U	<0.05 U	<0.050 U	<0.030 U	<0.030 U
n-Butylbenzene	µg/L	--	--	<0.021 U	<0.021 U	<0.05 U	<0.050 U	<0.030 U	<0.030 U
n-Propylbenzene	µg/L	--	--	<0.022 U	<0.022 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
o-Xylene	µg/L	2000.	400.	<0.027 U	<0.027 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
p-Isopropyltoluene	µg/L	--	--	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
sec-Butylbenzene	µg/L	--	--	<0.024 U	<0.024 U	<0.05 U	<0.050 U	<0.050 U	<0.050 U
Styrene	µg/L	100.	10.	<0.020 U	<0.020 U	<0.05 U	<0.050 U	<0.030 U	<0.030 U
tert-Butylbenzene	µg/L	--	--	<0.025 U	<0.025 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
Tetrachloroethene	µg/L	5.	0.05	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
Tetrahydrofuran	µg/L	50.	10.	<0.70 U	<0.70 U	<0.6 U	<0.60 U	<0.40 U	<0.40 U
Toluene	µg/L	800.	160.	<0.027 U	<0.027 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
trans-1,2-Dichloroethene	µg/L	100.	20.	0.055 J	0.07 J	<0.06 U	<0.060 U	0.064 J	0.068 J
Trichloroethene	µg/L	5.	0.5	0.032 J	0.022 J	0.045 J	<0.030 U	<0.050 U	<0.050 U
Vinyl acetate	µg/L	--	--	<0.60 U	<0.60 U	<0.5 U	<0.50 U	<0.22 U	1.8
Vinyl chloride	µg/L	0.2	0.02	0.043 J	0.044 J	0.052	0.046 J	0.035 J	0.032 J

Table 3. Groundwater Quality Data, Oconomowoc Electroplating Company Inc. (OECI) Superfund Site Monitoring Wells

	Date Sampled			12/8/2014	5/7/2015	11/06/2015	5/13/2016	11/4/2016	5/11/2017
	Units	NR140 ES	NR140 PAL	MW-15S	MW-15S	MW-15S	MW-15S	MW-15S	MW-15S
Field Parameters									
Dissolved Oxygen (DO)	mg/L	--	--	3.68	7.63	2.14	4.97	1.92	5.88
Oxidation Reduction Potential	millivolts	--	--	43	77	20	228	13	214
pH	pH-units	--	--	7.44	7.00	6.70	7.45	6.70	7.35
Specific Conductivity	umhos/cm	--	--	583	779	1490	826	1220	463
Temperature	deg-C	--	--	10.17	11.35	13.10	15.77	8.77	12.86
Turbidity	ntu	--	--	0.	0.	0.	0.	0.	0.
Natural Attenuation Parameters									
Alkalinity, total (as CaCO ₃)	mg/L	--	--	300.	220.	340.	310.	290.	310.
Chloride (as Cl)	mg/L	250.	125.	96.	190.	130.	120.	34.	25.
Iron, total (unfiltered)	mg/L	--	--	<0.020 U	<0.020 U	0.062 J	<0.020 U	<0.034 U	<0.034 U
Iron, dissolved (filtered)	mg/L	0.3	0.15	0.0221 J	0.0206 J	<0.01 U	<0.010 U	<0.059 U	<0.059 U
Manganese, total (unfiltered)	µg/L	--	--	8.7	4.7 J	20.7	10.4	16.2	30.1
Manganese, dissolved (filtered)	µg/L	50.	25.	19.3	<1.6 U	18.5	4.5 J	<2.2 U	<2.2 U
Acetylene	µg/L	--	--	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 UM
Ethane	µg/L	--	--	<0.60 U	<0.60 U	<0.9 U	<0.40 U	<0.40 U	<0.40 U
Ethene	µg/L	--	--	<0.90 U	<0.90 U	<1.2 U	<0.50 U	<0.50 U	<0.50 UM
Methane	µg/L	--	--	1.1	<0.30 U	<0.4 U	<0.40 U	<0.40 U	<0.40 U
Sulfate(as SO ₄)	mg/L	250.	125.	11.	9.5	17.	19.	6.8	6.8
Total Organic Carbon	mg/L	--	--	0.96 J	1.3 J	<0.4 U	2.5	1.4 J	2.9
VOCs									
1,1,1-Trichloroethane	µg/L	200.	40.	0.051 J	<0.030 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
1,1-Dichloroethane	µg/L	850.	85.	0.11	<0.024 U	0.2	0.074 J	<0.060 U	<0.060 U
1,1-Dichloroethene	µg/L	7.	0.7	<0.024 U	<0.024 U	<0.07 U	<0.070 U	<0.060 U	<0.060 U
1,2,3-Trichlorobenzene	µg/L	--	--	<0.040 U	<0.040 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
1,2,4-Trichlorobenzene	µg/L	70.	14.	<0.029 U	<0.029 U	<0.04 U	<0.040 U	<0.040 U	<0.040 U
1,2,4-Trimethylbenzene	µg/L	480.	96.	<0.024 U	<0.024 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
1,2-Dichlorobenzene	µg/L	600.	60.	<0.025 U	<0.025 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
1,2-Dichloroethane	µg/L	5.	0.5	<0.024 U	<0.024 U	<0.04 U	<0.040 U	<0.050 U	<0.050 U
1,3,5-Trimethylbenzene	µg/L	480.	96.	<0.022 U	<0.022 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
1,3-Dichlorobenzene	µg/L	600.	120.	0.11	<0.021 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
1,4-Dioxane	µg/L	3.	0.3	NA	NA	NA	NA	<7.0 U	<7.0 U
2-Butanone (MEK)	µg/L	4000.	800.	<0.80 U	<0.80 U	<0.8 U	<0.80 U	<0.50 U	<0.50 U
2-Chlorotoluene	µg/L	--	--	<0.025 U	<0.025 U	<0.06 U	<0.060 U	<0.030 U	<0.030 U
4-Chlorotoluene	µg/L	--	--	<0.029 U	<0.029 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
Acetone	µg/L	9000.	1800.	<1.3 UZ	<1.3 UZ	<0.9 U	<0.90 U	<0.30 U	0.41 JB
Benzene	µg/L	5.	0.5	<0.019 U	<0.019 U	<0.06 U	<0.060 U	<0.018 U	<0.018 U
Bromobenzene	µg/L	--	--	<0.030 U	<0.030 U	<0.04 U	<0.040 U	<0.040 U	<0.040 U
Chlorobenzene	µg/L	--	--	<0.024 U	<0.024 U	<0.04 U	<0.040 U	<0.040 U	<0.040 U
Chloroethane	µg/L	400.	80.	<0.040 U	<0.040 U	<0.06 U	<0.060 U	<0.070 U	<0.070 U
Chloromethane	µg/L	30.	3.	0.055 JB	<0.040 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
cis-1,2-Dichloroethene	µg/L	70.	7.	0.052 J	<0.030 U	<0.06 U	0.16 J	<0.070 U	<0.070 U
Ethylbenzene	µg/L	700.	140.	<0.019 U	<0.019 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
Hexachlorobutadiene	µg/L	--	--	<0.070 U	<0.070 U	<0.07 U	<0.070 U	<0.050 U	<0.050 U
Isopropylbenzene	µg/L	--	--	<0.060 U	<0.060 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
m & p-Xylene	µg/L	2000.	400.	<0.050 U	<0.050 U	<0.12 U	<0.12 U	<0.070 U	<0.070 U
Methyl tert-butyl ether	µg/L	60.	12.	<0.040 U	<0.040 U	<0.04 U	<0.040 U	<0.040 U	<0.040 U
Methylene chloride	µg/L	5.	0.5	<0.15 U	<0.15 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
Naphthalene	µg/L	100.	10.	<0.040 U	<0.040 U	<0.05 U	<0.050 U	<0.030 U	<0.030 U
n-Butylbenzene	µg/L	--	--	<0.021 U	<0.021 U	<0.05 U	<0.050 U	<0.030 U	<0.030 U
n-Propylbenzene	µg/L	--	--	<0.022 U	<0.022 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
o-Xylene	µg/L	2000.	400.	<0.027 U	<0.027 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
p-Isopropyltoluene	µg/L	--	--	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
sec-Butylbenzene	µg/L	--	--	<0.024 U	<0.024 U	<0.05 U	<0.050 U	<0.050 U	<0.050 U
Styrene	µg/L	100.	10.	<0.020 U	<0.020 U	<0.05 U	<0.050 U	<0.030 U	<0.030 U
tert-Butylbenzene	µg/L	--	--	<0.025 U	<0.025 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
Tetrachloroethene	µg/L	5.	0.05	0.07 J	<0.030 U	0.075 J	<0.060 U	<0.050 U	<0.050 U
Tetrahydrofuran	µg/L	50.	10.	<0.70 U	<0.70 U	<0.6 U	<0.60 UB	<0.40 U	<0.40 U
Toluene	µg/L	800.	160.	<0.027 U	<0.027 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
trans-1,2-Dichloroethene	µg/L	100.	20.	<0.040 U	<0.040 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
Trichloroethene	µg/L	5.	0.5	0.11	<0.020 U	0.051 J	0.098 J	<0.050 U	<0.050 U
Vinyl acetate	µg/L	--	--	<0.60 U	<0.60	<0.5 U	<0.50 U	<0.22 U	<0.22 U
Vinyl chloride	µg/L	0.2	0.02	<0.019 U	<0.019 U	<0.016 U	<0.016 U	<0.019 U	<0.019 U

Table 3. Groundwater Quality Data, Oconomowoc Electroplating Company Inc. (OECI) Superfund Site Monitoring Wells

	Date Sampled			12/9/2014	5/7/2015	11/06/2015	5/16/2016	11/4/2016	5/11/2017
	Units	NR140 ES	NR140 PAL	MW-15D	MW-15D	MW-15D	MW-15D	MW-15D	MW-15D
Field Parameters									
Dissolved Oxygen (DO)	mg/L	--	--	0.71	0.30	2.55	0.00	8.71	0.03
Oxidation Reduction Potential	millivolts	--	--	144	47	45	158	114	133
pH	pH-units	--	--	7.11	6.78	6.67	7.19	7.43	7.06
Specific Conductivity	umhos/cm	--	--	987	995	920	1140	528	956
Temperature	deg-C	--	--	10.61	12.95	12.35	15.91	6.43	13.27
Turbidity	ntu	--	--	0.	0.	1.6	0.3	0.	0.
Natural Attenuation Parameters									
Alkalinity, total (as CaCO ₃)	mg/L	--	--	350.	350.	340.	370.	400.	390.
Chloride (as Cl)	mg/L	250.	125.	220.	190.	180.	45.	200.	160.
Iron, total (unfiltered)	mg/L	--	--	0.265	0.0481 J	0.0353 J	0.147	0.0418 J	0.051 J
Iron, dissolved (filtered)	mg/L	0.3	0.15	0.014 J	0.0222 J	<0.01 U	<0.010 U	<0.059 U	<0.059 U
Manganese, total (unfiltered)	µg/L	--	--	269.	301.	256.	226.	237.	168.
Manganese, dissolved (filtered)	µg/L	50.	25.	235.	311.	251.	225.	227.	159.
Acetylene	µg/L	--	--	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U
Ethane	µg/L	--	--	<0.60 U	<0.60 U	<0.9 U	<0.40 U	<0.40 U	<0.40 U
Ethene	µg/L	--	--	<0.90 U	<0.90 U	<1.2 U	<0.50 U	<0.50 U	<0.50 U
Methane	µg/L	--	--	2.9	2.1	1.8	2.8	1 J	<0.40 U
Sulfate(as SO ₄)	mg/L	250.	125.	43.	54.	42.	210.	49.	44.
Total Organic Carbon	mg/L	--	--	1.5	2.2	0.68 J	2.9	2.8	3.8
VOCs									
1,1,1-Trichloroethane	µg/L	200.	40.	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
1,1-Dichloroethane	µg/L	850.	85.	0.026 J	0.033 J	<0.06 U	<0.060 U	<0.060 U	<0.060 U
1,1-Dichloroethene	µg/L	7.	0.7	0.052 J	0.071 J	<0.07 U	<0.070 U	<0.060 U	<0.060 U
1,2,3-Trichlorobenzene	µg/L	--	--	<0.040 U	<0.040 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
1,2,4-Trichlorobenzene	µg/L	70.	14.	<0.029 U	<0.029 U	<0.04 U	<0.040 U	<0.040 U	<0.040 U
1,2,4-Trimethylbenzene	µg/L	480.	96.	<0.024 U	<0.024 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
1,2-Dichlorobenzene	µg/L	600.	60.	<0.025 U	<0.025 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
1,2-Dichloroethane	µg/L	5.	0.5	<0.024 U	<0.024 U	<0.04 U	<0.040 U	<0.050 U	<0.050 U
1,3,5-Trimethylbenzene	µg/L	480.	96.	<0.022 U	<0.022 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
1,3-Dichlorobenzene	µg/L	600.	120.	0.13	<0.021 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
1,4-Dioxane	µg/L	3.	0.3	NA	NA	NA	NA	<7.0 U	<7.0 U
2-Butanone (MEK)	µg/L	4000.	800.	<0.80 U	<0.80 U	<0.8 U	<0.80 U	<0.50 U	<0.50 U
2-Chlorotoluene	µg/L	--	--	<0.025 U	<0.025 U	<0.06 U	<0.060 U	<0.030 U	<0.030 U
4-Chlorotoluene	µg/L	--	--	<0.029 U	<0.029 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
Acetone	µg/L	9000.	1800.	<1.3 UZ	<1.3 U	<0.9 U	<0.90 U	<0.30 U	0.72 JB
Benzene	µg/L	5.	0.5	<0.019 U	<0.019 U	<0.06 U	<0.060 U	0.023 J	0.019 J
Bromobenzene	µg/L	--	--	<0.030 U	<0.030 U	<0.04 U	<0.040 U	<0.040 U	<0.040 U
Chlorobenzene	µg/L	--	--	0.25	0.25	0.24	0.28	0.24	0.23
Chloroethane	µg/L	400.	80.	<0.040 U	<0.040 U	<0.06 U	<0.060 U	<0.070 U	<0.070 U
Chloromethane	µg/L	30.	3.	0.04 JB	<0.040 U	0.077 J	<0.050 U	<0.040 U	0.044 J
cis-1,2-Dichloroethene	µg/L	70.	7.	3.1	3.8	2.5	3.9	2.2	1.4
Ethylbenzene	µg/L	700.	140.	<0.019 U	<0.019 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
Hexachlorobutadiene	µg/L	--	--	<0.070 U	<0.070 U	<0.07 U	<0.070 U	<0.050 U	<0.050 U
Isopropylbenzene	µg/L	--	--	<0.060 U	<0.060 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
m & p-Xylene	µg/L	2000.	400.	<0.050 U	<0.050 U	<0.12 U	<0.12 U	<0.070 U	<0.070 U
Methyl tert-butyl ether	µg/L	60.	12.	<0.040 U	<0.040 U	<0.04 U	0.043 J	<0.040 U	<0.040 U
Methylene chloride	µg/L	5.	0.5	<0.15 U	<0.15 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
Naphthalene	µg/L	100.	10.	<0.040 U	<0.040 U	<0.05 U	<0.050 U	<0.030 U	<0.030 U
n-Butylbenzene	µg/L	--	--	<0.021 U	<0.021 U	<0.05 U	<0.050 U	<0.030 U	<0.030 U
n-Propylbenzene	µg/L	--	--	<0.022 U	<0.022 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
o-Xylene	µg/L	2000.	400.	<0.027 U	<0.027 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
p-Isopropyltoluene	µg/L	--	--	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
sec-Butylbenzene	µg/L	--	--	<0.024 U	<0.024 U	<0.05 U	<0.050 U	<0.050 U	<0.050 U
Styrene	µg/L	100.	10.	<0.020 U	<0.020 U	<0.05 U	<0.050 U	<0.030 U	<0.030 U
tert-Butylbenzene	µg/L	--	--	<0.025 U	<0.025 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
Tetrachloroethene	µg/L	5.	0.05	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
Tetrahydrofuran	µg/L	50.	10.	<0.70 U	<0.70 U	<0.6 U	<0.60 U	<0.40 U	<0.40 U
Toluene	µg/L	800.	160.	<0.027 U	<0.027 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
trans-1,2-Dichloroethene	µg/L	100.	20.	0.086 J	0.17	0.1 J	0.19 J	0.099 J	0.077 J
Trichloroethene	µg/L	5.	0.5	9.	12.	9.8	12.	9.8	10.
Vinyl acetate	µg/L	--	--	<0.60 U	<0.60 U	<0.5 U	<0.50 U	<0.22 U	<0.22 U
Vinyl chloride	µg/L	0.2	0.02	0.02 J	<0.019 U	0.03 J	<0.016 U	<0.019 U	<0.019 U

Table 3. Groundwater Quality Data, Oconomowoc Electroplating Company Inc. (OECI) Superfund Site Monitoring Wells

	Date Sampled			12/8/2014	5/7/2015	11/06/2015	5/13/2016	11/4/2016	5/11/2017
	Units	NR140 ES	NR140 PAL	MW-15B	MW-15B	MW-15B	MW-15B	MW-15B	MW-15B
Field Parameters									
Dissolved Oxygen (DO)	mg/L	--	--	1.18	0.13	0.32	0.00	0.29	1.40
Oxidation Reduction Potential	millivolts	--	--	-131	-121	-128	-129	-115	-92
pH	pH-units	--	--	7.28	6.81	6.93	7.35	7.33	7.23
Specific Conductivity	umhos/cm	--	--	508	586	552	709	695	549
Temperature	deg-C	--	--	9.17	13.62	12.28	13.52	3.20	13.47
Turbidity	ntu	--	--	48.	0.05	0.	1.3	0.	0.
Natural Attenuation Parameters									
Alkalinity, total (as CaCO ₃)	mg/L	--	--	410.	390.	420.	440.	450.	450.
Chloride (as Cl)	mg/L	250.	125.	13.	9.2	8.6 M	2.3	8.6	8.
Iron, total (unfiltered)	mg/L	--	--	2.27	2.29	3.31	2.14	2.35	2.33
Iron, dissolved (filtered)	mg/L	0.3	0.15	2.07	2.25	2.45	2.33	2.41	2.27
Manganese, total (unfiltered)	µg/L	--	--	631.	516.	548.	410.	429.	348.
Manganese, dissolved (filtered)	µg/L	50.	25.	550.	521.	539.	442.	411.	360.
Acetylene	µg/L	--	--	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U
Ethane	µg/L	--	--	<0.60 U	5.7	<0.9 U	0.93 J	<0.40 U	<0.40 U
Ethene	µg/L	--	--	<0.90 U	<0.90 U	<1.2 U	<0.50 U	<0.50 U	<0.50 U
Methane	µg/L	--	--	590.	720.	580.	920.	210.	410.
Sulfate(as SO ₄)	mg/L	250.	125.	16.	8.9	6.	8.7	<1.0 U	<1.0 U
Total Organic Carbon	mg/L	--	--	0.68 J	1.2 J	<0.4 U	1.3 J	1.1 J	<0.50 U
VOCs									
1,1,1-Trichloroethane	µg/L	200.	40.	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
1,1-Dichloroethane	µg/L	850.	85.	<0.024 U	<0.024 U	<0.06 U	<0.060 U	<0.060 U	<0.060 U
1,1-Dichloroethene	µg/L	7.	0.7	<0.024 U	<0.024 U	<0.07 U	<0.070 U	<0.060 U	<0.060 U
1,2,3-Trichlorobenzene	µg/L	--	--	<0.040 U	<0.040 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
1,2,4-Trichlorobenzene	µg/L	70.	14.	<0.029 U	<0.029 U	<0.04 U	<0.040 U	<0.040 U	<0.040 U
1,2,4-Trimethylbenzene	µg/L	480.	96.	<0.024 U	<0.024 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
1,2-Dichlorobenzene	µg/L	600.	60.	<0.025 U	<0.025 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
1,2-Dichloroethane	µg/L	5.	0.5	<0.024 U	<0.024 U	<0.04 U	<0.040 U	<0.050 U	<0.050 U
1,3,5-Trimethylbenzene	µg/L	480.	96.	<0.022 U	<0.022 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
1,3-Dichlorobenzene	µg/L	600.	120.	0.13	0.031 J	<0.06 U	<0.060 U	<0.040 U	<0.040 U
1,4-Dioxane	µg/L	3.	0.3	NA	NA	NA	NA	<7.0 U	<7.0 U
2-Butanone (MEK)	µg/L	4000.	800.	<0.80 U	<0.80 U	<0.8 U	<0.80 U	<0.50 U	<0.50 U
2-Chlorotoluene	µg/L	--	--	<0.025 U	<0.025 U	<0.06 U	<0.060 U	<0.030 U	<0.030 U
4-Chlorotoluene	µg/L	--	--	<0.029 U	<0.029 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
Acetone	µg/L	9000.	1800.	<1.3 UZ	<1.3 U	<0.9 U	<0.90 U	<0.30 U	0.36 JB
Benzene	µg/L	5.	0.5	<0.019 U	<0.019 U	<0.06 U	<0.060 U	<0.018 U	<0.018 U
Bromobenzene	µg/L	--	--	<0.030 U	<0.030 U	<0.04 U	<0.040 U	<0.040 U	<0.040 U
Chlorobenzene	µg/L	--	--	<0.024 U	<0.024 U	<0.04 U	<0.040 U	<0.040 U	<0.040 U
Chloroethane	µg/L	400.	80.	<0.040 U	<0.040 U	<0.06 U	<0.060 U	<0.070 U	<0.070 U
Chloromethane	µg/L	30.	3.	0.068 JB	<0.040 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
cis-1,2-Dichloroethene	µg/L	70.	7.	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.070 U	<0.070 U
Ethylbenzene	µg/L	700.	140.	<0.019 U	<0.019 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
Hexachlorobutadiene	µg/L	--	--	<0.070 U	<0.070 U	<0.07 U	<0.070 U	<0.050 U	<0.050 U
Isopropylbenzene	µg/L	--	--	<0.060 U	<0.060 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
m & p-Xylene	µg/L	2000.	400.	<0.050 U	<0.050 U	<0.12 U	<0.12 U	<0.070 U	<0.070 U
Methyl tert-butyl ether	µg/L	60.	12.	<0.040 U	<0.040 U	<0.04 U	<0.040 U	<0.040 U	<0.040 U
Methylene chloride	µg/L	5.	0.5	<0.15 U	<0.15 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
Naphthalene	µg/L	100.	10.	<0.040 U	<0.040 U	<0.05 U	<0.050 U	<0.030 U	<0.030 U
n-Butylbenzene	µg/L	--	--	<0.021 U	<0.021 U	<0.05 U	<0.050 U	<0.030 U	<0.030 U
n-Propylbenzene	µg/L	--	--	<0.022 U	<0.022 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
o-Xylene	µg/L	2000.	400.	<0.027 U	<0.027 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
p-Isopropyltoluene	µg/L	--	--	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
sec-Butylbenzene	µg/L	--	--	<0.024 U	<0.024 U	<0.05 U	<0.050 U	<0.050 U	<0.050 U
Styrene	µg/L	100.	10.	<0.020 U	<0.020 U	<0.05 U	<0.050 U	<0.030 U	<0.030 U
tert-Butylbenzene	µg/L	--	--	<0.025 U	<0.025 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
Tetrachloroethene	µg/L	5.	0.05	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
Tetrahydrofuran	µg/L	50.	10.	<0.70 U	<0.70 U	<0.6 U	<0.60 U	<0.40 U	<0.40 U
Toluene	µg/L	800.	160.	<0.027 U	<0.027 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
trans-1,2-Dichloroethene	µg/L	100.	20.	<0.040 U	<0.040 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
Trichloroethene	µg/L	5.	0.5	<0.020 U	<0.020 U	<0.03 U	<0.030 U	<0.050 U	<0.050 U
Vinyl acetate	µg/L	--	--	<0.60 U	<0.60 U	<0.5 U	<0.50 U	<0.22 U	<0.22 U
Vinyl chloride	µg/L	0.2	0.02	<0.019 U	<0.019 U	<0.016 U	<0.016 U	<0.019 U	<0.019 U

Table 3. Groundwater Quality Data, Oconomowoc Electroplating Company Inc. (OECI) Superfund Site Monitoring Wells

	Date Sampled			12/11/2014	5/8/2015	11/05/2015	5/13/2016	11/4/2016	5/12/2017
	Units	NR140 ES	NR140 PAL	MW-16S	MW-16S	MW-16S	MW-16S	MW-16S	MW-16S
Field Parameters									
Dissolved Oxygen (DO)	mg/L	--	--	Not Sampled.	9.96	0.36	0.00	0.05	0.05
Oxidation Reduction Potential	millivolts	--	--	Ice in well.	-90	-80	-73	-123	-123
pH	pH-units	--	--		6.44	6.48	7.01	7.07	7.07
Specific Conductivity	umhos/cm	--	--		299	2510	2730	2690	2690
Temperature	deg-C	--	--		9.96	13.53	15.36	6.32	6.32
Turbidity	ntu	--	--		19.2	11.4	2.8	0.	0.
Natural Attenuation Parameters									
Alkalinity, total (as CaCO ₃)	mg/L	--	--		680.	720.	730.	690.	710.
Chloride (as Cl)	mg/L	250.	125.		260.	230.	250.	220.	210 M
Iron, total (unfiltered)	mg/L	--	--		7.73	6.35	58.3	5.83	6.39 M
Iron, dissolved (filtered)	mg/L	0.3	0.15		6.3	5.42	5.77	5.66	5.15
Manganese, total (unfiltered)	µg/L	--	--		67.8	76.3	6.77	66.2	57.7
Manganese, dissolved (filtered)	µg/L	50.	25.		65.6	64.8	58.6	61.4	46.5
Acetylene	µg/L	--	--		<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U
Ethane	µg/L	--	--		<0.60 U	<0.9 U	<0.40 U	<0.40 U	<0.40 U
Ethene	µg/L	--	--		<0.90 U	<1.2 U	<0.50 U	<0.50 U	<0.50 U
Methane	µg/L	--	--		11.	13.	19.	1.7	1.9
Sulfate(as SO4)	mg/L	250.	125.		910.	790.	950.	720.	670 M
Total Organic Carbon	mg/L	--	--		3.8	3.1	4.8	4.6	6.1
VOCs									
1,1,1-Trichloroethane	µg/L	200.	40.		<0.030 U	<3 U	<0.60 U	<2.5 U	<5.0 U
1,1-Dichloroethane	µg/L	850.	85.		0.23	<3 U	<0.60 U	<3.0 U	<6.0 U
1,1-Dichloroethene	µg/L	7.	0.7		1.1	<3.5 U	0.81 J	<3.0 U	<6.0 U
1,2,3-Trichlorobenzene	µg/L	--	--		<0.040 U	<2.5 U	<0.50 U	<2.0 U	<4.0 U
1,2,4-Trichlorobenzene	µg/L	70.	14.		<0.029 U	<2 U	<0.40 U	<2.0 U	<4.0 U
1,2,4-Trimethylbenzene	µg/L	480.	96.		<0.024 U	<2.5 U	<0.50 U	<2.0 U	<4.0 U
1,2-Dichlorobenzene	µg/L	600.	60.		<0.025 U	<3 U	<0.60 U	<2.0 U	<4.0 U
1,2-Dichloroethane	µg/L	5.	0.5		2.1	3.3 J	2.5	2.5 J	<5.0 U
1,3,5-Trimethylbenzene	µg/L	480.	96.		<0.022 U	<3 U	<0.60 U	<2.5 U	<5.0 U
1,3-Dichlorobenzene	µg/L	600.	120.		<0.021 U	<3 U	<0.60 U	<2.0 U	<4.0 U
1,4-Dioxane	µg/L	3.	0.3		NA	NA	NA	<350 U	<700 U
2-Butanone (MEK)	µg/L	4000.	800.		<0.80 U	<40 U	<8.0 U	<25 U	110 J
2-Chlorotoluene	µg/L	--	--		<0.025 U	<3 U	<0.60 U	<1.5 U	<3.0 U
4-Chlorotoluene	µg/L	--	--		<0.029 U	<2.5 U	<0.50 U	<2.0 U	<4.0 U
Acetone	µg/L	9000.	1800.		<1.3 U	<45 U	240 B	<15 U	100 B
Benzene	µg/L	5.	0.5		0.024 J	<3 U	<0.60 U	<0.90 U	<1.8 U
Bromobenzene	µg/L	--	--		<0.030 U	<2 U	<0.40 U	<2.0 U	<4.0 U
Chlorobenzene	µg/L	--	--		<0.024 U	<2 U	<0.40 U	<2.0 U	<4.0 U
Chloroethane	µg/L	400.	80.		<0.040 U	<3 U	<0.60 U	<3.5 U	<7.0 U
Chloromethane	µg/L	30.	3.		<0.040 U	<2.5 U	<0.50 U	<2.0 U	<4.0 U
cis-1,2-Dichloroethene	µg/L	70.	7.		800.	1000.	630.	730.	870.
Ethylbenzene	µg/L	700.	140.		<0.019 U	<3 U	<0.60 U	<2.0 U	<4.0 U
Hexachlorobutadiene	µg/L	--	--		<0.070 U	<3.5 U	<0.70 U	<2.5 U	<5.0 U
Isopropylbenzene	µg/L	--	--		<0.060 U	<2.5 U	<0.50 U	<2.0 U	<4.0 U
m & p-Xylene	µg/L	2000.	400.		<0.050 U	<6 U	<1.2 U	<3.5 U	<7.0 U
Methyl tert-butyl ether	µg/L	60.	12.		<0.040 U	<2 U	<0.40 U	<2.0 U	<4.0 U
Methylene chloride	µg/L	5.	0.5		<0.15 U	<3 U	<0.60 U	<2.5 U	61 M,B
Naphthalene	µg/L	100.	10.		<0.040 U	<2.5 U	<0.50 U	<1.5 U	<3.0 U
n-Butylbenzene	µg/L	--	--		<0.021 U	<2.5 U	<0.50 U	<1.5 U	<3.0 U
n-Propylbenzene	µg/L	--	--		<0.022 U	<2.5 U	<0.50 U	<2.0 U	<4.0 U
o-Xylene	µg/L	2000.	400.		<0.027 U	<2.5 U	<0.50 U	<2.0 U	<4.0 U
p-Isopropyltoluene	µg/L	--	--		<0.030 U	<3 U	<0.60 U	<2.0 U	<4.0 U
sec-Butylbenzene	µg/L	--	--		<0.024 U	<2.5 U	<0.50 U	<2.5 U	<5.0 U
Styrene	µg/L	100.	10.		<0.020 U	<2.5 U	<0.50 U	<1.5 U	<3.0 U
tert-Butylbenzene	µg/L	--	--		<0.025 U	<3 U	<0.60 U	<2.0 U	<4.0 U
Tetrachloroethene	µg/L	5.	0.05		<0.030 U	<3 U	<0.60 U	<2.5 U	<5.0 U
Tetrahydrofuran	µg/L	50.	10.		3.1	<30 U	8.8 JZ	29 JB	69 JB
Toluene	µg/L	800.	160.		<0.027 U	<3 U	<0.60 U	<2.0 U	<4.0 U
trans-1,2-Dichloroethene	µg/L	100.	20.		34.	32.	27.	34.	41.
Trichloroethene	µg/L	5.	0.5		0.034 J	<1.5 U	<0.30 U	<2.5 U	<5.0 U
Vinyl acetate	µg/L	--	--		<0.60 U	<25 U	<5.0 U	<11 U	180.
Vinyl chloride	µg/L	0.2	0.02		28.	58.	23.	53.	28.

Table 3. Groundwater Quality Data, Oconomowoc Electroplating Company Inc. (OECI) Superfund Site Monitoring Wells

	Date Sampled			12/9/2014	5/7/2015	11/04/2015	5/10/2016	11/3/2016	5/11/2017
	Units	NR140 ES	NR140 PAL	MW-101S	MW-101S	MW-101S	MW-101S	MW-101S	MW-101S
Field Parameters									
Dissolved Oxygen (DO)	mg/L	--	--	5.27	3.64	6.53	2.62	2.88	12.90
Oxidation Reduction Potential	millivolts	--	--	110	128	105	336	121	223
pH	pH-units	--	--	7.37	6.52	7.18	6.82	7.02	6.95
Specific Conductivity	umhos/cm	--	--	1940	1570	2330	3180	374	1100
Temperature	deg-C	--	--	9.28	19.29	16.49	9.98	13.67	12.11
Turbidity	ntu	--	--	0.	3.9	0.	12.3	0.	0.
Natural Attenuation Parameters									
Alkalinity, total (as CaCO ₃)	mg/L	--	--	370.	250.	420.	330.	260.	310.
Chloride (as Cl)	mg/L	250.	125.	590.	690.	420.	830.	28.	300.
Iron, total (unfiltered)	mg/L	--	--	<0.020 U	0.0687	0.0383 J	0.0458 J	0.172	0.569
Iron, dissolved (filtered)	mg/L	0.3	0.15	0.0111 J	0.0199 J	<0.01 U	0.0296 J	<0.059 U	0.281
Manganese, total (unfiltered)	µg/L	--	--	371.	99.2	157.	68.6	224.	21.4
Manganese, dissolved (filtered)	µg/L	50.	25.	100.	<1.6 U	4.6 J	<1.6 U	<2.2 U	<2.2 U
Acetylene	µg/L	--	--	<0.23 U	<0.23 UM,Y	<0.23 U	<0.23 U	<0.23 U	<0.23 U
Ethane	µg/L	--	--	<0.60 U	<0.60 U	<0.9 U	<0.40 U	<0.40 U	<0.40 U
Ethene	µg/L	--	--	<0.90 U	<0.90 U	<1.2 U	<0.50 U	<0.50 U	<0.50 U
Methane	µg/L	--	--	<0.30 U	<0.30 U	<0.4 U	<0.40 U	<0.40 U	<0.40 U
Sulfate(as SO ₄)	mg/L	250.	125.	17.	20.	29.	26.	7.5	21.
Total Organic Carbon	mg/L	--	--	4.6	5.2	5.6	6.5 Y	4.1	<0.50 U
VOCs									
1,1,1-Trichloroethane	µg/L	200.	40.	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
1,1-Dichloroethane	µg/L	850.	85.	<0.024 U	<0.024 U	<0.06 U	<0.060 U	<0.060 U	<0.060 U
1,1-Dichloroethene	µg/L	7.	0.7	<0.024 U	<0.024 U	<0.07 U	<0.070 U	<0.060 U	<0.060 U
1,2,3-Trichlorobenzene	µg/L	--	--	<0.040 U	<0.040 U	<0.05 U	<0.050 UY	<0.040 U	<0.040 U
1,2,4-Trichlorobenzene	µg/L	70.	14.	<0.029 U	<0.029 U	<0.04 U	<0.040 UY	<0.040 U	<0.040 U
1,2,4-Trimethylbenzene	µg/L	480.	96.	<0.024 U	<0.024 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
1,2-Dichlorobenzene	µg/L	600.	60.	<0.025 U	<0.025 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
1,2-Dichloroethane	µg/L	5.	0.5	<0.024 U	<0.024 U	<0.04 U	<0.040 U	<0.050 U	<0.050 U
1,3,5-Trimethylbenzene	µg/L	480.	96.	<0.022 U	<0.022 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
1,3-Dichlorobenzene	µg/L	600.	120.	0.12	<0.021 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
1,4-Dioxane	µg/L	3.	0.3	NA	NA	NA	NA	<7.0 U	<7.0 U
2-Butanone (MEK)	µg/L	4000.	800.	<0.80 U	<0.80 U	<0.8 U	<0.80 U	<0.50 U	<0.50 U
2-Chlorotoluene	µg/L	--	--	<0.025 U	<0.025 U	<0.06 U	<0.060 U	<0.030 U	<0.030 U
4-Chlorotoluene	µg/L	--	--	<0.029 U	<0.029 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
Acetone	µg/L	9000.	1800.	<1.3 UZ	<1.3 U	<0.9 U	<0.90 U	<0.30 U	0.5 JB
Benzene	µg/L	5.	0.5	<0.019 U	<0.019 U	<0.06 U	<0.060 U	<0.018 U	<0.018 U
Bromobenzene	µg/L	--	--	<0.030 U	<0.030 U	<0.04 U	<0.040 U	<0.040 U	<0.040 U
Chlorobenzene	µg/L	--	--	<0.024 U	<0.024 U	<0.04 U	<0.040 U	<0.040 U	<0.040 U
Chloroethane	µg/L	400.	80.	<0.040 U	<0.040 U	<0.06 U	<0.060 U	<0.070 U	<0.070 U
Chloromethane	µg/L	30.	3.	0.065 JB	<0.040 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
cis-1,2-Dichloroethene	µg/L	70.	7.	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.070 U	<0.070 U
Ethylbenzene	µg/L	700.	140.	<0.019 U	<0.019 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
Hexachlorobutadiene	µg/L	--	--	<0.070 U	<0.070 U	<0.07 U	<0.070 UY	<0.050 U	<0.050 U
Isopropylbenzene	µg/L	--	--	<0.060 U	<0.060 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
m & p-Xylene	µg/L	2000.	400.	<0.050 U	<0.050 U	<0.12 U	<0.12 U	<0.070 U	<0.070 U
Methyl tert-butyl ether	µg/L	60.	12.	<0.040 U	<0.040 U	<0.04 U	<0.040 U	<0.040 U	<0.040 U
Methylene chloride	µg/L	5.	0.5	<0.15 U	<0.15 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
Naphthalene	µg/L	100.	10.	<0.040 U	<0.040 U	<0.05 U	<0.050 UY	<0.030 U	<0.030 U
n-Butylbenzene	µg/L	--	--	<0.021 U	<0.021 U	<0.05 U	<0.050 U	<0.030 U	<0.030 U
n-Propylbenzene	µg/L	--	--	<0.022 U	<0.022 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
o-Xylene	µg/L	2000.	400.	<0.027 U	<0.027 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
p-Isopropyltoluene	µg/L	--	--	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
sec-Butylbenzene	µg/L	--	--	<0.024 U	<0.024 U	<0.05 U	<0.050 U	<0.050 U	<0.050 U
Styrene	µg/L	100.	10.	<0.020 U	<0.020 U	<0.05 U	<0.050 U	<0.030 U	<0.030 U
tert-Butylbenzene	µg/L	--	--	<0.025 U	<0.025 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
Tetrachloroethene	µg/L	5.	0.05	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
Tetrahydrofuran	µg/L	50.	10.	<0.70 U	<0.70 U	<0.6 U	<0.60 U	<0.40 U	<0.40 U
Toluene	µg/L	800.	160.	<0.027 U	<0.027 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
trans-1,2-Dichloroethene	µg/L	100.	20.	<0.040 U	<0.040 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
Trichloroethene	µg/L	5.	0.5	<0.020 U	<0.020 U	<0.03 U	<0.030 U	<0.050 U	<0.050 U
Vinyl acetate	µg/L	--	--	<0.60 U	<0.60 U	<0.5 U	<0.50 U	<0.22 U	<0.22 U
Vinyl chloride	µg/L	0.2	0.02	<0.019 U	<0.019 U	<0.016 U	<0.016 U	<0.019 U	<0.019 U

Table 3. Groundwater Quality Data, Oconomowoc Electroplating Company Inc. (OECI) Superfund Site Monitoring Wells

	Date Sampled			12/9/2014	5/7/2015	11/04/2015	5/10/2016	11/3/2016	5/11/2017
	Units	NR140 ES	NR140 PAL	MW-101B	MW-101B	MW-101B	MW-101B	MW-101B	MW-101B
Field Parameters									
Dissolved Oxygen (DO)	mg/L	--	--	0.10	0.11	0.19	0.22	0.00	0.18
Oxidation Reduction Potential	millivolts	--	--	35	87	30	253	38	193
pH	pH-units	--	--	7.62	6.85	7.49	7.24	7.26	7.17
Specific Conductivity	umhos/cm	--	--	990	863	862	1180	999	926
Temperature	deg-C	--	--	9.65	14.54	15.41	10.52	8.81	13.71
Turbidity	ntu	--	--	0.	0.5	0.	1.3	0.	0.
Natural Attenuation Parameters									
Alkalinity, total (as CaCO ₃)	mg/L	--	--	330.	320.	350.	360.	370.	370.
Chloride (as Cl)	mg/L	250.	125.	240.	190.	180.	180.	160.	170.
Iron, total (unfiltered)	mg/L	--	--	<0.020 U	0.0525 J	0.0523 J	<0.020 U	<0.034 U	<0.034 U
Iron, dissolved (filtered)	mg/L	0.3	0.15	<0.010 U	0.0115 J	0.0229 J	<0.010 U	<0.059 U	<0.059 U
Manganese, total (unfiltered)	µg/L	--	--	88.2	58.7	128.	51.8	90.3	69.4
Manganese, dissolved (filtered)	µg/L	50.	25.	95.9	58.4	115.	57.4	111.	66.7
Acetylene	µg/L	--	--	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U
Ethane	µg/L	--	--	<0.60 U	<0.60 U	<0.9 U	<0.40 U	<0.40 U	<0.40 U
Ethene	µg/L	--	--	<0.90 U	<0.90 U	<1.2 U	<0.50 U	<0.50 U	<0.50 U
Methane	µg/L	--	--	41.	31.	67.	75.	170.	41.
Sulfate(as SO ₄)	mg/L	250.	125.	40.	43.	49.	40.	35.	47.
Total Organic Carbon	mg/L	--	--	0.72 J	1.1 J	<0.4 U	2.	1.2 J	3.
VOCs									
1,1,1-Trichloroethane	µg/L	200.	40.	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
1,1-Dichloroethane	µg/L	850.	85.	<0.024 U	<0.024 U	<0.06 U	<0.060 U	<0.060 U	<0.060 U
1,1-Dichloroethene	µg/L	7.	0.7	<0.024 U	<0.024 U	<0.07 U	<0.070 U	<0.060 U	<0.060 U
1,2,3-Trichlorobenzene	µg/L	--	--	<0.040 U	<0.040 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
1,2,4-Trichlorobenzene	µg/L	70.	14.	<0.029 U	<0.029 U	<0.04 U	<0.040 U	<0.040 U	<0.040 U
1,2,4-Trimethylbenzene	µg/L	480.	96.	<0.024 U	<0.024 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
1,2-Dichlorobenzene	µg/L	600.	60.	<0.025 U	<0.025 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
1,2-Dichloroethane	µg/L	5.	0.5	<0.024 U	<0.024 U	<0.04 U	<0.040 U	<0.050 U	<0.050 U
1,3,5-Trimethylbenzene	µg/L	480.	96.	<0.022 U	<0.022 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
1,3-Dichlorobenzene	µg/L	600.	120.	0.13	<0.021 U	0.068 J	<0.060 U	<0.040 U	<0.040 U
1,4-Dioxane	µg/L	3.	0.3	NA	NA	NA	NA	<7.0 U	<7.0 U
2-Butanone (MEK)	µg/L	4000.	800.	<0.80 U	<0.80 U	<0.8 U	<0.80 U	<0.50 U	<0.50 U
2-Chlorotoluene	µg/L	--	--	<0.025 U	<0.025 U	<0.06 U	<0.060 U	<0.030 U	<0.030 U
4-Chlorotoluene	µg/L	--	--	<0.029 U	<0.029 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
Acetone	µg/L	9000.	1800.	<1.3 UZ	<1.3 U	<0.9 U	<0.90 U	<0.30 U	0.38 JB
Benzene	µg/L	5.	0.5	<0.019 U	<0.019 U	<0.06 U	<0.060 U	<0.018 U	<0.018 U
Bromobenzene	µg/L	--	--	<0.030 U	<0.030 U	<0.04 U	<0.040 U	<0.040 U	<0.040 U
Chlorobenzene	µg/L	--	--	<0.024 U	<0.024 U	<0.04 U	<0.040 U	<0.040 U	<0.040 U
Chloroethane	µg/L	400.	80.	<0.040 U	<0.040 U	<0.06 U	<0.060 U	<0.070 U	<0.070 U
Chloromethane	µg/L	30.	3.	0.073 JB	<0.040 U	<0.05 U	<0.050 U	<0.040 U	0.041 J
cis-1,2-Dichloroethene	µg/L	70.	7.	0.37	0.23	0.34	0.32	0.47	0.51
Ethylbenzene	µg/L	700.	140.	<0.019 U	<0.019 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
Hexachlorobutadiene	µg/L	--	--	<0.070 U	<0.070 U	<0.07 U	<0.070 U	<0.050 U	<0.050 U
Isopropylbenzene	µg/L	--	--	<0.060 U	<0.060 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
m & p-Xylene	µg/L	2000.	400.	<0.050 U	<0.050 U	<0.12 U	<0.12 U	<0.070 U	<0.070 U
Methyl tert-butyl ether	µg/L	60.	12.	0.26	0.22	0.29	0.24	0.24	0.28
Methylene chloride	µg/L	5.	0.5	<0.15 U	<0.15 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
Naphthalene	µg/L	100.	10.	<0.040 U	<0.040 U	<0.05 U	<0.050 U	<0.030 U	<0.030 U
n-Butylbenzene	µg/L	--	--	<0.021 U	<0.021 U	<0.05 U	<0.050 U	<0.030 U	<0.030 U
n-Propylbenzene	µg/L	--	--	<0.022 U	<0.022 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
o-Xylene	µg/L	2000.	400.	<0.027 U	<0.027 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
p-Isopropyltoluene	µg/L	--	--	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
sec-Butylbenzene	µg/L	--	--	<0.024 U	<0.024 U	<0.05 U	<0.050 U	<0.050 U	<0.050 U
Styrene	µg/L	100.	10.	<0.020 U	<0.020 U	<0.05 U	<0.050 U	<0.030 U	<0.030 U
tert-Butylbenzene	µg/L	--	--	<0.025 U	<0.025 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
Tetrachloroethene	µg/L	5.	0.05	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
Tetrahydrofuran	µg/L	50.	10.	<0.70 U	<0.70 U	<0.6 U	<0.60 U	<0.40 U	<0.40 U
Toluene	µg/L	800.	160.	<0.027 U	<0.027 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
trans-1,2-Dichloroethene	µg/L	100.	20.	<0.040 U	<0.040 U	<0.06 U	<0.060 U	0.047 J	<0.040 U
Trichloroethene	µg/L	5.	0.5	<0.020 U	0.047 J	0.03 J	0.045 J	<0.050 U	<0.050 U
Vinyl acetate	µg/L	--	--	<0.60 U	<0.60 U	<0.5 U	<0.50 U	<0.22 U	<0.22 U
Vinyl chloride	µg/L	0.2	0.02	<0.019 U	<0.019 U	<0.016 U	<0.016 U	<0.019 U	<0.019 U

Table 3. Groundwater Quality Data, Oconomowoc Electroplating Company Inc. (OECI) Superfund Site Monitoring Wells

	Date Sampled			12/9/2014	5/7/2015	11/06/2015	5/13/2016	11/3/2016	5/11/2017
	Units	NR140 ES	NR140 PAL	MW-102S	MW-102S	MW-102S	MW-102S	MW-102S	MW-102S
Field Parameters									
Dissolved Oxygen (DO)	mg/L	--	--	0.71	5.00	2.22	6.79	0.63	1.91
Oxidation Reduction Potential	millivolts	--	--	144	122	83	356	94	164
pH	pH-units	--	--	7.16	6.61	6.42	7.14	6.96	6.82
Specific Conductivity	umhos/cm	--	--	2520	1980	2640	1230	2350	2820
Temperature	deg-C	--	--	9.80	10.33	13.44	12.17	11.78	12.84
Turbidity	ntu	--	--	0.	0.	0.	0.	0.	0.
Natural Attenuation Parameters									
Alkalinity, total (as CaCO ₃)	mg/L	--	--	420.	360.	420.	350.	460.	460.
Chloride (as Cl)	mg/L	250.	125.	650.	490.	630.	220.	590.	710.
Iron, total (unfiltered)	mg/L	--	--	<0.020 U	<0.020 U	<0.02 U	<0.020 U	<0.034 U	<0.034 U
Iron, dissolved (filtered)	mg/L	0.3	0.15	<0.010 U	0.0112 J	<0.01 U	<0.010 U	<0.059 U	<0.059 U
Manganese, total (unfiltered)	µg/L	--	--	<1.4 U	<1.4 U	7.	<1.4 U	<3.4 U	<3.4 U
Manganese, dissolved (filtered)	µg/L	50.	25.	<1.6 U	<1.6 U	<1.6 U	<1.6 U	<2.2 U	<2.2 U
Acetylene	µg/L	--	--	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U
Ethane	µg/L	--	--	<0.60 U	<0.60 U	<0.9 UY	<0.40 U	<0.40 U	<0.40 U
Ethene	µg/L	--	--	<0.90 U	<0.90 U	<1.2 U	<0.50 U	<0.50 U	<0.50 U
Methane	µg/L	--	--	<0.30 U	<0.30 U	<0.4 UY	<0.40 U	<0.40 U	5.6
Sulfate(as SO ₄)	mg/L	250.	125.	29.	26.	27.	28.	21.	30.
Total Organic Carbon	mg/L	--	--	1.6	1.8	2.3	0.97 J	1.8	3.8
VOCs									
1,1,1-Trichloroethane	µg/L	200.	40.	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
1,1-Dichloroethane	µg/L	850.	85.	<0.024 U	<0.024 U	<0.06 U	<0.060 U	<0.060 U	<0.060 U
1,1-Dichloroethene	µg/L	7.	0.7	<0.024 U	<0.024 U	<0.07 U	<0.070 U	<0.060 U	<0.060 U
1,2,3-Trichlorobenzene	µg/L	--	--	<0.040 U	<0.040 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
1,2,4-Trichlorobenzene	µg/L	70.	14.	<0.029 U	<0.029 U	<0.04 U	<0.040 U	<0.040 U	<0.040 U
1,2,4-Trimethylbenzene	µg/L	480.	96.	<0.024 U	<0.024 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
1,2-Dichlorobenzene	µg/L	600.	60.	<0.025 U	<0.025 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
1,2-Dichloroethane	µg/L	5.	0.5	<0.024 U	<0.024 U	<0.04 U	<0.040 U	<0.050 U	<0.050 U
1,3,5-Trimethylbenzene	µg/L	480.	96.	<0.022 U	<0.022 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
1,3-Dichlorobenzene	µg/L	600.	120.	0.1	<0.021 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
1,4-Dioxane	µg/L	3.	0.3	NA	NA	NA	NA	<7.0 U	<7.0 U
2-Butanone (MEK)	µg/L	4000.	800.	<0.80 U	<0.80 U	<0.8 U	<0.80 U	<0.50 U	<0.50 U
2-Chlorotoluene	µg/L	--	--	<0.025 U	<0.025 U	<0.06 U	<0.060 U	<0.030 U	<0.030 U
4-Chlorotoluene	µg/L	--	--	<0.029 U	<0.029 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
Acetone	µg/L	9000.	1800.	<1.3 UZ	<1.3 U	<0.9 U	<0.90 U	<0.30 U	0.38 JB
Benzene	µg/L	5.	0.5	<0.019 U	<0.019 U	<0.06 U	<0.060 U	<0.018 U	<0.018 U
Bromobenzene	µg/L	--	--	<0.030 U	<0.030 U	<0.04 U	<0.040 U	<0.040 U	<0.040 U
Chlorobenzene	µg/L	--	--	<0.024 U	<0.024 U	<0.04 U	<0.040 U	<0.040 U	<0.040 U
Chloroethane	µg/L	400.	80.	<0.040 U	<0.040 U	<0.06 U	<0.060 U	<0.070 U	<0.070 U
Chloromethane	µg/L	30.	3.	0.066 JB	<0.040 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
cis-1,2-Dichloroethene	µg/L	70.	7.	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.070 U	<0.070 U
Ethylbenzene	µg/L	700.	140.	<0.019 U	<0.019 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
Hexachlorobutadiene	µg/L	--	--	<0.070 U	<0.070 U	<0.07 U	<0.070 U	<0.050 U	<0.050 U
Isopropylbenzene	µg/L	--	--	<0.060 U	<0.060 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
m & p-Xylene	µg/L	2000.	400.	<0.050 U	<0.050 U	<0.12 U	<0.12 U	<0.070 U	<0.070 U
Methyl tert-butyl ether	µg/L	60.	12.	<0.040 U	<0.040 U	<0.04 U	<0.040 U	<0.040 U	<0.040 U
Methylene chloride	µg/L	5.	0.5	<0.15 U	<0.15 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
Naphthalene	µg/L	100.	10.	<0.040 U	<0.040 U	<0.05 U	<0.050 U	<0.030 U	<0.030 U
n-Butylbenzene	µg/L	--	--	<0.021 U	<0.021 U	<0.05 U	<0.050 U	<0.030 U	<0.030 U
n-Propylbenzene	µg/L	--	--	<0.022 U	<0.022 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
o-Xylene	µg/L	2000.	400.	<0.027 U	<0.027 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
p-Isopropyltoluene	µg/L	--	--	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
sec-Butylbenzene	µg/L	--	--	<0.024 U	<0.024 U	<0.05 U	<0.050 U	<0.050 U	<0.050 U
Styrene	µg/L	100.	10.	<0.020 U	<0.020 U	<0.05 U	<0.050 U	<0.030 U	<0.030 U
tert-Butylbenzene	µg/L	--	--	<0.025 U	<0.025 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
Tetrachloroethene	µg/L	5.	0.05	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
Tetrahydrofuran	µg/L	50.	10.	<0.70 U	<0.70 U	<0.6 U	<0.60 U	<0.40 U	<0.40 U
Toluene	µg/L	800.	160.	<0.027 U	<0.027 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
trans-1,2-Dichloroethene	µg/L	100.	20.	<0.040 U	<0.040 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
Trichloroethene	µg/L	5.	0.5	<0.020 U	<0.020 U	<0.03 U	<0.030 U	<0.050 U	<0.050 U
Vinyl acetate	µg/L	--	--	<0.60 U	<0.60 U	<0.5 U	<0.50 U	<0.22 U	<0.22 U
Vinyl chloride	µg/L	0.2	0.02	<0.019 U	<0.019 U	<0.016 U	<0.016 U	<0.019 U	<0.019 U

Table 3. Groundwater Quality Data, Oconomowoc Electroplating Company Inc. (OECI) Superfund Site Monitoring Wells

	Date Sampled			12/9/2014	5/7/2015	11/06/2015	5/18/2016	11/3/2016	5/11/2017
	Units	NR140 ES	NR140 PAL	MW-102D	MW-102D	MW-102D	MW-102D	MW-102D	MW-102D
Field Parameters									
Dissolved Oxygen (DO)	mg/L	--	--	7.07	0.00	0.30	0.29	0.00	1.07
Oxidation Reduction Potential	millivolts	--	--	-80	-78	-70	-2	-87	-44
pH	pH-units	--	--	7.61	6.90	6.88	6.79	7.20	7.06
Specific Conductivity	umhos/cm	--	--	1010	977	887	1400	1330	1180
Temperature	deg-C	--	--	8.65	11.97	11.65	11.56	11.12	12.36
Turbidity	ntu	--	--	0.	0.	0.	0.	0.	0.
Natural Attenuation Parameters									
Alkalinity, total (as CaCO ₃)	mg/L	--	--	330.	330.	340.	460.	480.	480.
Chloride (as Cl)	mg/L	250.	125.	230.	200.	160.	220.	210.	210 M
Iron, total (unfiltered)	mg/L	--	--	0.754	0.785	0.628	1.4	1.67	1.76
Iron, dissolved (filtered)	mg/L	0.3	0.15	0.592	0.769	0.553	1.54	1.78	1.72
Manganese, total (unfiltered)	µg/L	--	--	23.9	27.4	31.8	37.7	40.2	35.6
Manganese, dissolved (filtered)	µg/L	50.	25.	21.	29.4	20.3	34.2	39.7	35.1
Acetylene	µg/L	--	--	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U
Ethane	µg/L	--	--	<0.60 U	<0.60 U	<0.9 U	<0.40 U	<0.40 U	<0.40 U
Ethene	µg/L	--	--	<0.90 U	<0.90 U	<1.2 U	<0.50 U	<0.50 U	<0.50 U
Methane	µg/L	--	--	6.1	7.	7.9	12.	8.8	3.1
Sulfate(as SO ₄)	mg/L	250.	125.	48.	57.	45.	100.	96.	87 M
Total Organic Carbon	mg/L	--	--	1.2 J	1.5	0.84 J	2.3	2.3	3.6
VOCs									
1,1,1-Trichloroethane	µg/L	200.	40.	<0.030 U	<0.030 U	<0.06 U	<0.30 U	<0.050 U	<0.13 U
1,1-Dichloroethane	µg/L	850.	85.	<0.024 U	<0.024 U	<0.06 U	<0.30 U	<0.060 U	<0.15 U
1,1-Dichloroethene	µg/L	7.	0.7	0.052 J	0.058 J	<0.07 U	<0.35 U	0.09 J	<0.15 U
1,2,3-Trichlorobenzene	µg/L	--	--	<0.040 U	<0.040 U	<0.05 U	<0.25 U	<0.040 U	<0.10 U
1,2,4-Trichlorobenzene	µg/L	70.	14.	<0.029 U	<0.029 U	<0.04 U	<0.20 U	<0.040 U	<0.10 U
1,2,4-Trimethylbenzene	µg/L	480.	96.	<0.024 U	<0.024 U	<0.05 U	<0.25 U	<0.040 U	<0.10 U
1,2-Dichlorobenzene	µg/L	600.	60.	<0.025 U	<0.025 U	<0.06 U	<0.30 U	<0.040 U	<0.10 U
1,2-Dichloroethane	µg/L	5.	0.5	0.075 J	0.067 J	0.074 J	0.28 J	0.26	0.3 J
1,3,5-Trimethylbenzene	µg/L	480.	96.	<0.022 U	<0.022 U	<0.06 U	<0.30 U	<0.050 U	<0.13 U
1,3-Dichlorobenzene	µg/L	600.	120.	0.15	0.033 J	<0.06 U	<0.30 U	<0.040 U	<0.10 U
1,4-Dioxane	µg/L	3.	0.3	NA	NA	NA	NA	<7.0 U	<18 U
2-Butanone (MEK)	µg/L	4000.	800.	<0.80 U	<0.80 U	<0.8 U	<4.0 U	<0.50 U	<1.3 U
2-Chlorotoluene	µg/L	--	--	<0.025 U	<0.025 U	<0.06 U	<0.30 U	<0.030 U	<0.075 U
4-Chlorotoluene	µg/L	--	--	<0.029 U	<0.029 U	<0.05 U	<0.25 U	<0.040 U	<0.10 U
Acetone	µg/L	9000.	1800.	<1.3 UZ	<1.3 U	<0.9 U	110 B	<0.30 U	2 JB
Benzene	µg/L	5.	0.5	<0.019 U	<0.019 U	<0.06 U	<0.30 U	<0.018 U	<0.045 U
Bromobenzene	µg/L	--	--	<0.030 U	<0.030 U	<0.04 U	<0.20 U	<0.040 U	<0.10 U
Chlorobenzene	µg/L	--	--	<0.024 U	<0.024 U	<0.04 U	<0.20 U	<0.040 U	<0.10 U
Chloroethane	µg/L	400.	80.	<0.040 U	<0.040 U	<0.06 U	<0.30 U	<0.070 U	<0.18 U
Chloromethane	µg/L	30.	3.	0.055 JB	<0.040 U	<0.05 U	<0.25 U	<0.040 U	0.1 J
cis-1,2-Dichloroethene	µg/L	70.	7.	10.	7.8	9.3	28.	32.	38.
Ethylbenzene	µg/L	700.	140.	<0.019 U	<0.019 U	<0.06 U	<0.30 U	<0.040 U	<0.10 U
Hexachlorobutadiene	µg/L	--	--	<0.070 U	<0.070 U	<0.07 U	<0.35 U	<0.050 U	<0.13 U
Isopropylbenzene	µg/L	--	--	<0.060 U	<0.060 U	<0.05 U	<0.25 U	<0.040 U	<0.10 U
m & p-Xylene	µg/L	2000.	400.	<0.050 U	<0.050 U	<0.12 U	<0.60 U	<0.070 U	<0.18 U
Methyl tert-butyl ether	µg/L	60.	12.	0.35	0.38	0.35	0.98	1.	1.
Methylene chloride	µg/L	5.	0.5	<0.15 U	<0.15 U	<0.06 U	<0.30 U	<0.050 U	2.7
Naphthalene	µg/L	100.	10.	<0.040 U	<0.040 U	<0.05 U	<0.25 U	<0.030 U	<0.075 U
n-Butylbenzene	µg/L	--	--	<0.021 U	<0.021 U	<0.05 U	<0.25 U	<0.030 U	<0.075 U
n-Propylbenzene	µg/L	--	--	<0.022 U	<0.022 U	<0.05 U	<0.25 U	<0.040 U	<0.10 U
o-Xylene	µg/L	2000.	400.	<0.027 U	<0.027 U	<0.05 U	<0.25 U	<0.040 U	<0.10 U
p-Isopropyltoluene	µg/L	--	--	<0.030 U	<0.030 U	<0.06 U	<0.30 U	<0.040 U	<0.10 U
sec-Butylbenzene	µg/L	--	--	<0.024 U	<0.024 U	<0.05 U	<0.25 U	<0.050 U	<0.13 U
Styrene	µg/L	100.	10.	<0.020 U	<0.020 U	<0.05 U	<0.25 U	<0.030 U	<0.075 U
tert-Butylbenzene	µg/L	--	--	<0.025 U	<0.025 U	<0.06 U	<0.30 U	<0.040 U	<0.10 U
Tetrachloroethene	µg/L	5.	0.05	<0.030 U	<0.030 U	<0.06 U	<0.30 U	<0.050 U	<0.13 U
Tetrahydrofuran	µg/L	50.	10.	<0.70 U	<0.70 U	<0.6 U	<3.0 U	<0.40 U	<1.0 U
Toluene	µg/L	800.	160.	<0.027 U	<0.027 U	<0.06 U	<0.30 U	<0.040 U	<0.10 U
trans-1,2-Dichloroethene	µg/L	100.	20.	0.28	0.22	0.25	0.72 J	1.1	1.1
Trichloroethene	µg/L	5.	0.5	0.37	0.26	0.36	0.24 J	0.17	0.16 J
Vinyl acetate	µg/L	--	--	<0.60 U	<0.60 U	<0.5 U	<2.5 U	<0.22 U	<0.55 U
Vinyl chloride	µg/L	0.2	0.02	0.15	0.23	0.21	0.32	0.23	0.25

Table 3. Groundwater Quality Data, Oconomowoc Electroplating Company Inc. (OECI) Superfund Site Monitoring Wells

	Date Sampled			12/8/2014	5/5/2015	11/04/2015	5/18/2016	11/2/2016	5/9/2017
	Units	NR140 ES	NR140 PAL	MW-103S	MW-103S	MW-103S	MW-103S	MW-103S	MW-103S
Field Parameters									
Dissolved Oxygen (DO)	mg/L	--	--	0.76	0.00	0.65	5.74	0.92	2.10
Oxidation Reduction Potential	millivolts	--	--	116	90	134	213	165	132
pH	pH-units	--	--	7.05	7.07	7.04	6.65	6.78	7.22
Specific Conductivity	umhos/cm	--	--	736	1040	896	841	883	1080
Temperature	deg-C	--	--	8.99	8.07	18.20	10.40	8.03	8.30
Turbidity	ntu	--	--	2.4	4.6	0.	0.	0.	0.
Natural Attenuation Parameters									
Alkalinity, total (as CaCO ₃)	mg/L	--	--	510.	450.	550.	490.	450.	520.
Chloride (as Cl)	mg/L	250.	125.	71.	47.	89.	57.	68.	31.
Iron, total (unfiltered)	mg/L	--	--	0.0347 J	0.0645 J	0.0491 J	0.0206 J	0.04 J	0.0721 J
Iron, dissolved (filtered)	mg/L	0.3	0.15	0.0224 J	<0.010 U	0.0222 J	0.0339	<0.059 U	<0.059 U
Manganese, total (unfiltered)	µg/L	--	--	394.	414.	449.	394.	274.	423.
Manganese, dissolved (filtered)	µg/L	50.	25.	182.	366.	311.	348.	319.	547 M
Acetylene	µg/L	--	--	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 UM
Ethane	µg/L	--	--	<0.60 U	<0.60 U	<0.9 U	<0.40 U	<0.40 U	<0.40 UM
Ethene	µg/L	--	--	<0.90 U	<0.90 U	<1.2 U	<0.50 U	<0.50 U	<0.50 UM
Methane	µg/L	--	--	3.	6.2	11.	88.	7.7	5.2
Sulfate(as SO ₄)	mg/L	250.	125.	52.	46.	88.	69.	35.	67 M
Total Organic Carbon	mg/L	--	--	6.8	5.7	6.9	6.9	6.	8.5
VOCs									
1,1,1-Trichloroethane	µg/L	200.	40.	32.	21.	39.	30.	37.	58.
1,1-Dichloroethane	µg/L	850.	85.	7.3	4.8	12.	7.6	5.1	11.
1,1-Dichloroethene	µg/L	7.	0.7	2.3	1.8	5.1	4.	2.	6.4
1,2,3-Trichlorobenzene	µg/L	--	--	<0.40 U	<0.40 U	<0.5 U	<0.50 U	<0.40 U	<0.80 U
1,2,4-Trichlorobenzene	µg/L	70.	14.	<0.29 U	<0.29 U	<0.4 U	<0.40 U	<0.40 U	<0.80 U
1,2,4-Trimethylbenzene	µg/L	480.	96.	<0.24 U	<0.24 U	<0.5 U	<0.50 U	<0.40 U	<0.80 U
1,2-Dichlorobenzene	µg/L	600.	60.	<0.25 U	<0.25 U	<0.6 U	<0.60 U	<0.40 U	<0.80 U
1,2-Dichloroethane	µg/L	5.	0.5	0.33 J	0.75 J	1.2 J	1.2 J	<0.50 U	<1.0 U
1,3,5-Trimethylbenzene	µg/L	480.	96.	<0.22 U	<0.22 U	<0.6 U	<0.60 U	<0.50 U	<1.0 U
1,3-Dichlorobenzene	µg/L	600.	120.	<0.21 U	<0.21 U	<0.6 U	<0.60 U	<0.40 U	<0.80 U
1,4-Dioxane	µg/L	3.	0.3	NA	NA	NA	NA	<70 U	<140 U
2-Butanone (MEK)	µg/L	4000.	800.	<8.0 U	<8.0 U	<8 U	<8.0 U	<5.0 U	<10 U
2-Chlorotoluene	µg/L	--	--	<0.25 U	<0.25 U	<0.6 U	<0.60 U	<0.30 U	<0.60 U
4-Chlorotoluene	µg/L	--	--	<0.29 U	<0.29 U	<0.5 U	<0.50 U	<0.40 U	<0.80 U
Acetone	µg/L	9000.	1800.	<13 UZ	<13 UZ	<9 U	250 B	<3.0 U	19 JB
Benzene	µg/L	5.	0.5	0.59 J	0.43 J	<0.6 U	<0.60 U	0.31 J	0.55 J
Bromobenzene	µg/L	--	--	<0.30 U	<0.30 U	<0.4 U	<0.40 U	<0.40 U	<0.80 U
Chlorobenzene	µg/L	--	--	1.3	0.76 J	2.1	0.86 J	1.4 J	<0.80 U
Chloroethane	µg/L	400.	80.	<0.40 U	<0.40 U	0.72 J	1.3 J	<0.70 U	<1.4 U
Chloromethane	µg/L	30.	3.	<0.40 U	<0.40 U	<0.5 U	<0.50 U	<0.40 U	<0.80 U
cis-1,2-Dichloroethene	µg/L	70.	7.	27.	19.	54.	33.	13.	24.
Ethylbenzene	µg/L	700.	140.	<0.19 U	<0.19 U	<0.6 U	<0.60 U	<0.40 U	<0.80 U
Hexachlorobutadiene	µg/L	--	--	<0.70 U	<0.70 U	<0.7 U	<0.70 U	<0.50 U	<1.0 U
Isopropylbenzene	µg/L	--	--	<0.60 U	<0.60 U	<0.5 U	<0.50 U	<0.40 U	<0.80 U
m & p-Xylene	µg/L	2000.	400.	<0.50 U	<0.50 U	<1.2 U	<1.2 U	<0.70 U	<1.4 U
Methyl tert-butyl ether	µg/L	60.	12.	<0.40 U	<0.40 U	<0.4 U	<0.40 U	<0.40 U	<0.80 U
Methylene chloride	µg/L	5.	0.5	<1.5 U	<1.5 U	<0.6 U	<0.60 U	<0.50 U	6 B
Naphthalene	µg/L	100.	10.	<0.40 U	<0.40 U	<0.5 U	<0.50 U	<0.30 U	<0.60 U
n-Butylbenzene	µg/L	--	--	<0.21 U	<0.21 U	<0.5 U	<0.50 U	<0.30 U	<0.60 U
n-Propylbenzene	µg/L	--	--	<0.22 U	<0.22 U	<0.5 U	<0.50 U	<0.40 U	<0.80 U
o-Xylene	µg/L	2000.	400.	<0.27 U	<0.27 U	<0.5 U	<0.50 U	<0.40 U	<0.80 U
p-Isopropyltoluene	µg/L	--	--	<0.30 U	<0.30 U	<0.6 U	<0.60 U	<0.40 U	<0.80 U
sec-Butylbenzene	µg/L	--	--	<0.24 U	<0.24 U	<0.5 U	<0.50 U	<0.50 U	<1.0 U
Styrene	µg/L	100.	10.	<0.20 U	<0.20 U	<0.5 U	<0.50 U	<0.30 U	<0.60 U
tert-Butylbenzene	µg/L	--	--	<0.25 U	<0.25 U	<0.6 U	<0.60 U	<0.40 U	<0.80 U
Tetrachloroethene	µg/L	5.	0.05	3.8	8.3	11.	9.6	17.	25.
Tetrahydrofuran	µg/L	50.	10.	<7.0 U	<7.0 U	<6 U	<6.0 U	4.4 JB	13 JB
Toluene	µg/L	800.	160.	<0.27 U	<0.27 U	<0.6 U	<0.60 U	<0.40 U	<0.80 U
trans-1,2-Dichloroethene	µg/L	100.	20.	1.1 J	0.74 J	2.	0.90 J	0.55 J	1.1 J
Trichloroethene	µg/L	5.	0.5	100.	73.	130.	57.	110.	170.
Vinyl acetate	µg/L	--	--	<6.0 U	<6.0 U	<5 U	<5.0 U	<2.2 U	<4.4 U
Vinyl chloride	µg/L	0.2	0.02	0.49 J	0.64	1.5	1.5	0.44 J	0.85 J

Table 3. Groundwater Quality Data, Oconomowoc Electroplating Company Inc. (OECI) Superfund Site Monitoring Wells

	Date Sampled				12/8/2014	12/17/2014	5/5/2015	5/5/2015	11/04/2015	11/04/2015
	Units	NR140 ES	NR140 PAL	MW-103D	MW-103D Dup	MW-103D	MW-103D Dup	MW-103D	MW-103D DUP	
Field Parameters										
Dissolved Oxygen (DO)	mg/L	--	--	9.07	11.65	0.00	0.00	0.46	0.47	
Oxidation Reduction Potential	millivolts	--	--	-6	39	81	81	78	82	
pH	pH-units	--	--	6.96	7.75	7.17	7.17	7.11	7.10	
Specific Conductivity	umhos/cm	--	--	826	1050	1410	1410	923	923	
Temperature	deg-C	--	--	9.17	8.60	9.78	9.78	13.82	13.79	
Turbidity	ntu	--	--	3.65	0.	3.2	3.2	0.	0.	
Natural Attenuation Parameters										
Alkalinity, total (as CaCO ₃)	mg/L	--	--	420.	410.	390.	400.	440.	440.	
Chloride (as Cl)	mg/L	250.	125.	180 M	140.	170.	170.	150.	150.	
Iron, total (unfiltered)	mg/L	--	--	0.12	<0.020 U	0.0253 J	0.128	0.0614 J	0.0473 J	
Iron, dissolved (filtered)	mg/L	0.3	0.15	0.0229 J	0.0168 J	<0.010 U	<0.010 U	0.0399	0.0419	
Manganese, total (unfiltered)	µg/L	--	--	258.	233.	340.	367.	309.	294.	
Manganese, dissolved (filtered)	µg/L	50.	25.	195.	207.	324.	320.	280.	282.	
Acetylene	µg/L	--	--	<0.23 U	<0.60 U	<0.60 U	<0.60 U	<0.23 U	<0.23 U	
Ethane	µg/L	--	--	<0.60 U	<0.23 U	<0.23 U	<0.23 U	<0.9 U	<0.9 U	
Ethene	µg/L	--	--	<0.90 U	<0.90 U	<0.90 U	<0.90 U	<1.2 U	<1.2 U	
Methane	µg/L	--	--	1.9	2.8	5.1	4.6	4.5	5.2	
Sulfate(as SO ₄)	mg/L	250.	125.	62.	53.	60.	60.	62.	61.	
Total Organic Carbon	mg/L	--	--	7.	21.	5.2	4.9	3.9	4.1	
VOCs										
1,1,1-Trichloroethane	µg/L	200.	40.	55.	55.	49.	47.	46.	43.	
1,1-Dichloroethane	µg/L	850.	85.	8.3	8.3	7.9	7.8	7.	7.1	
1,1-Dichloroethene	µg/L	7.	0.7	2.9 J	2.4 J	2 J	2.3 J	2.3 J	2.4 J	
1,2,3-Trichlorobenzene	µg/L	--	--	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1 U	<1 U	
1,2,4-Trichlorobenzene	µg/L	70.	14.	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<0.8 U	<0.8 U	
1,2,4-Trimethylbenzene	µg/L	480.	96.	16.	1.6 J	<1.2 U	<1.2 U	<1 U	<1 U	
1,2-Dichlorobenzene	µg/L	600.	60.	<1.3 U	<1.3 U	<1.3 U	<1.3 U	<1.2 U	<1.2 U	
1,2-Dichloroethane	µg/L	5.	0.5	<1.2 U	<1.2 U	<1.2 U	<1.2 U	<0.8 U	<0.8 U	
1,3,5-Trimethylbenzene	µg/L	480.	96.	<1.1 U	<1.1 U	<1.1 U	<1.1 U	<1.2 U	<1.2 U	
1,3-Dichlorobenzene	µg/L	600.	120.	<1.1 U	<1.1 U	<1.1 U	<1.1 U	<1.2 U	<1.2 U	
1,4-Dioxane	µg/L	3.	0.3	NA	NA	NA	NA	NA	NA	
2-Butanone (MEK)	µg/L	4000.	800.	<40 U	<40 U	<40 U	<40 U	<16 U	<16 U	
2-Chlorotoluene	µg/L	--	--	<1.3 U	<1.3 U	<1.3 U	<1.3 U	<1.2 U	<1.2 U	
4-Chlorotoluene	µg/L	--	--	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1 U	<1 U	
Acetone	µg/L	9000.	1800.	<65 UZ	<65 UZ	<65 UZ	<65 UZ	<18 U	<18 U	
Benzene	µg/L	5.	0.5	<0.95 U	<0.95 U	<0.95 U	<0.95 U	<1.2 U	<1.2 U	
Bromobenzene	µg/L	--	--	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<0.8 U	<0.8 U	
Chlorobenzene	µg/L	--	--	<1.2 U	<1.2 U	<1.2 U	<1.2 U	<0.8 U	<0.8 U	
Chloroethane	µg/L	400.	80.	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.2 U	<1.2 U	
Chloromethane	µg/L	30.	3.	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1 U	<1 U	
cis-1,2-Dichloroethene	µg/L	70.	7.	63.	60.	48.	50.	48.	50.	
Ethylbenzene	µg/L	700.	140.	<0.95 U	<0.95 U	<0.95 U	<0.95 U	<1.2 U	<1.2 U	
Hexachlorobutadiene	µg/L	--	--	<3.5 U	<3.5 U	<3.5 U	<3.5 U	<1.4 U	<1.4 U	
Isopropylbenzene	µg/L	--	--	<3.0 U	<3.0 U	<3.0 U	<3.0 U	<1 U	<1 U	
m & p-Xylene	µg/L	2000.	400.	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.4 U	<2.4 U	
Methyl tert-butyl ether	µg/L	60.	12.	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<0.8 U	<0.8 U	
Methylene chloride	µg/L	5.	0.5	<7.5 U	<7.5 U	<7.5 U	<7.5 U	<1.2 U	<1.2 U	
Naphthalene	µg/L	100.	10.	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1 U	<1 U	
n-Butylbenzene	µg/L	--	--	<1.1 U	<1.1 U	<1.1 U	<1.1 U	<1 U	<1 U	
n-Propylbenzene	µg/L	--	--	<1.1 U	<1.1 U	<1.1 U	<1.1 U	<1 U	<1 U	
o-Xylene	µg/L	2000.	400.	<1.4 U	<1.4 U	<1.4 U	<1.4 U	<1 U	<1 U	
p-Isopropyltoluene	µg/L	--	--	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.2 U	<1.2 U	
sec-Butylbenzene	µg/L	--	--	<1.2 U	<1.2 U	<1.2 U	<1.2 U	<1 U	<1 U	
Styrene	µg/L	100.	10.	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1 U	<1 U	
tert-Butylbenzene	µg/L	--	--	<1.3 U	<1.3 U	<1.3 U	<1.3 U	<1.2 U	<1.2 U	
Tetrachloroethene	µg/L	5.	0.05	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.2 U	<1.2 U	
Tetrahydrofuran	µg/L	50.	10.	<35 U	<35 U	<35 U	<35 U	<12 U	<12 U	
Toluene	µg/L	800.	160.	2 J	<1.4 U	<1.4 U	<1.4 U	<1.2 U	<1.2 U	
trans-1,2-Dichloroethene	µg/L	100.	20.	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<1.2 U	<1.2 U	
Trichloroethene	µg/L	5.	0.5	460.	440.	430.	420.	420.	430.	
Vinyl acetate	µg/L	--	--	<30 U	<30 U	<30 U	<30 U	<10 U	<10 U	
Vinyl chloride	µg/L	0.2	0.02	1.1 J	<0.95 U	1.4 J	1.3 J	0.5 J	0.74 J	

Table 3. Groundwater Quality Data, Oconomowoc Electroplating Company Inc. (OECI) Superfund Site Monitoring Wells

	Date Sampled			5/18/2016	5/18/2016	11/2/2016	11/2/2016	5/9/2017	5/9/2017
	Units	NR140 ES	NR140 PAL	MW-103D	MW-103D Dup	MW-103D	MW-103D Dup	MW-103D	MW-103D Dup
Field Parameters									
Dissolved Oxygen (DO)	mg/L	--	--	0.02	0.02	0.00	0.00	0.60	0.60
Oxidation Reduction Potential	millivolts	--	--	218	220	4	4	137	137
pH	pH-units	--	--	6.80	6.80	6.81	6.81	7.24	7.24
Specific Conductivity	umhos/cm	--	--	1110	1110	1290	1290	1460	1460
Temperature	deg-C	--	--	11.46	11.45	6.87	6.88	8.96	8.96
Turbidity	ntu	--	--	0.	0.	0.	0.	0.	0.
Natural Attenuation Parameters									
Alkalinity, total (as CaCO ₃)	mg/L	--	--	450.	450.	470.	460.	450.	440.
Chloride (as Cl)	mg/L	250.	125.	180.	180.	160.	170.	170.	170.
Iron, total (unfiltered)	mg/L	--	--	0.0599 J	0.228	0.0831 J	0.133	0.0699 J	0.0487 J
Iron, dissolved (filtered)	mg/L	0.3	0.15	<0.010 U	<0.010 U	<0.059 U	<0.059 U	<0.059 U	<0.059 U
Manganese, total (unfiltered)	µg/L	--	--	379.	364.	403.	388.	358.	369.
Manganese, dissolved (filtered)	µg/L	50.	25.	335.	331.	398.	389.	312.	316.
Acetylene	µg/L	--	--	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U
Ethane	µg/L	--	--	<0.40 U	<0.40 U	<0.40 U	<0.40 U	<0.40 U	<0.40 U
Ethene	µg/L	--	--	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U
Methane	µg/L	--	--	13.	12.	7.9	7.8	<0.40 U	0.5 J
Sulfate(as SO ₄)	mg/L	250.	125.	77.	74.	68.	73.	71.	70.
Total Organic Carbon	mg/L	--	--	5.6	6.7	5.4	5.4	5.5	5.4
VOCs									
1,1,1-Trichloroethane	µg/L	200.	40.	44.	34.	36.	38.	36.	34.
1,1-Dichloroethane	µg/L	850.	85.	7.	5.8	5.8	5.6	6.7 J	6.9 J
1,1-Dichloroethene	µg/L	7.	0.7	2.1 J	1.3 J	1.5 J	1.6 J	<3.0 U	<3.0 U
1,2,3-Trichlorobenzene	µg/L	--	--	<1.3 U	<0.50 U	<0.80 U	<0.80 U	<2.0 U	<2.0 U
1,2,4-Trichlorobenzene	µg/L	70.	14.	<1.0 U	<0.40 U	<0.80 U	<0.80 U	<2.0 U	<2.0 U
1,2,4-Trimethylbenzene	µg/L	480.	96.	<1.3 U	<0.50 U	<0.80 U	<0.80 U	<2.0 U	<2.0 U
1,2-Dichlorobenzene	µg/L	600.	60.	<1.5 U	<0.60 U	<0.80 U	<0.80 U	<2.0 U	<2.0 U
1,2-Dichloroethane	µg/L	5.	0.5	<1.0 U	<0.40 U	<1.0 U	<1.0 U	<2.5 U	<2.5 U
1,3,5-Trimethylbenzene	µg/L	480.	96.	<1.5 U	<0.60 U	<1.0 U	<1.0 U	<2.5 U	<2.5 U
1,3-Dichlorobenzene	µg/L	600.	120.	<1.5 U	<0.60 U	<0.80 U	<0.80 U	<2.0 U	<2.0 U
1,4-Dioxane	µg/L	3.	0.3	NA	NA	<140 U	<140 U	<350 UM,Y	<350 U
2-Butanone (MEK)	µg/L	4000.	800.	<20 U	<8.0 U	<10 U	<10 U	<25 U	<25 U
2-Chlorotoluene	µg/L	--	--	<1.5 U	<0.60 U	<0.60 U	<0.60 U	<1.5 U	<1.5 U
4-Chlorotoluene	µg/L	--	--	<1.3 U	<0.50 U	<0.80 U	<0.80 U	<2.0 U	<2.0 U
Acetone	µg/L	9000.	1800.	660 B	230 B	<6.0 U	<6.0 U	48 JM,Y,B	58 B
Benzene	µg/L	5.	0.5	<1.5 U	<0.60 U	<0.36 U	<0.36 U	<0.90 U	<0.90 U
Bromobenzene	µg/L	--	--	<1.0 U	<0.40 U	<0.80 U	<0.80 U	<2.0 U	<2.0 U
Chlorobenzene	µg/L	--	--	<1.0 U	<0.40 U	<0.80 U	<0.80 U	<2.0 U	<2.0 U
Chloroethane	µg/L	400.	80.	<1.5 U	<0.60 U	<1.4 U	<1.4 U	<3.5 U	<3.5 U
Chloromethane	µg/L	30.	3.	<1.3 U	<0.50 U	<0.80 U	<0.80 U	<2.0 U	<2.0 U
cis-1,2-Dichloroethene	µg/L	70.	7.	43.	33.	43.	43.	49.	47.
Ethylbenzene	µg/L	700.	140.	<1.5 U	<0.60 U	<0.80 U	<0.80 U	<2.0 U	<2.0 U
Hexachlorobutadiene	µg/L	--	--	<1.8 U	<0.70 U	<1.0 U	<1.0 U	<2.5 U	<2.5 U
Isopropylbenzene	µg/L	--	--	<1.3 U	<0.50 U	<0.80 U	<0.80 U	<2.0 U	<2.0 U
m & p-Xylene	µg/L	2000.	400.	<3.0 U	<1.2 U	<1.4 U	<1.4 U	<3.5 U	<3.5 U
Methyl tert-butyl ether	µg/L	60.	12.	<1.0 U	<0.40 U	<0.80 U	<0.80 U	<2.0 U	<2.0 U
Methylene chloride	µg/L	5.	0.5	<1.5 U	<0.60 U	<1.0 U	<1.0 U	14 Y	16.
Naphthalene	µg/L	100.	10.	<1.3 U	<0.50 U	<0.60 U	<0.60 U	<1.5 U	<1.5 U
n-Butylbenzene	µg/L	--	--	<1.3 U	<0.50 U	<0.60 U	<0.60 U	<1.5 U	<1.5 U
n-Propylbenzene	µg/L	--	--	<1.3 U	<0.50 U	<0.80 U	<0.80 U	<2.0 U	<2.0 U
o-Xylene	µg/L	2000.	400.	<1.3 U	<0.50 U	<0.80 U	<0.80 U	<2.0 U	<2.0 U
p-Isopropyltoluene	µg/L	--	--	<1.5 U	<0.60 U	<0.80 U	<0.80 U	<2.0 U	<2.0 U
sec-Butylbenzene	µg/L	--	--	<1.3 U	<0.50 U	<1.0 U	<1.0 U	<2.5 U	<2.5 U
Styrene	µg/L	100.	10.	<1.3 U	<0.50 U	<0.60 U	<0.60 U	<1.5 U	<1.5 U
tert-Butylbenzene	µg/L	--	--	<1.5 U	<0.60 U	<0.80 U	<0.80 U	<2.0 U	<2.0 U
Tetrachloroethene	µg/L	5.	0.05	<1.5 U	<0.60 U	<1.0 U	<1.0 U	<2.5 U	<2.5 U
Tetrahydrofuran	µg/L	50.	10.	<15 U	<6.0 U	8.2 JB	<8.0 U	<20 U	<20 U
Toluene	µg/L	800.	160.	<1.5 U	<0.60 U	<0.80 U	<0.80 U	<2.0 U	<2.0 U
trans-1,2-Dichloroethene	µg/L	100.	20.	<1.5 U	<0.60 U	0.95 J	<0.80 U	<2.0 U	<2.0 U
Trichloroethene	µg/L	5.	0.5	390.	340.	360.	360.	380.	360.
Vinyl acetate	µg/L	--	--	<13 U	<5.0 U	<4.4 U	<4.4 U	<11 U	<11 U
Vinyl chloride	µg/L	0.2	0.02	<0.40 U	0.50 J	<0.38 U	<0.38 U	1.5 J	1.2 J

Table 3. Groundwater Quality Data, Oconomowoc Electroplating Company Inc. (OECI) Superfund Site Monitoring Wells

	Date Sampled				12/10/2014	12/17/2014	5/5/2015	5/5/2015	11/03/2015	11/03/2015
	Units	NR140 ES	NR140 PAL	MW-105S	MW-105S Dup	MW-105S	MW-105S Dup	MW-105S	MW-105S DUP	
Field Parameters										
Dissolved Oxygen (DO)	mg/L	--	--	0.68	10.42	0.00	0.00	0.37	0.37	
Oxidation Reduction Potential	millivolts	--	--	-27	-46	-55	-55	-48	-47	
pH	pH-units	--	--	7.46	7.51	7.20	7.20	7.24	7.24	
Specific Conductivity	umhos/cm	--	--	1430	1750	2360	2360	1910	1910	
Temperature	deg-C	--	--	7.80	6.52	8.39	8.39	20.20	20.15	
Turbidity	ntu	--	--	188.	101.	22.8	22.8	9.3	9.5	
Natural Attenuation Parameters										
Alkalinity, total (as CaCO ₃)	mg/L	--	--	390.	390.	380.	380.	400.	410.	
Chloride (as Cl)	mg/L	250.	125.	440.	330.	510.	420.	400.	410.	
Iron, total (unfiltered)	mg/L	--	--	7.44	3.53	2.41	2.45	2.27	2.27	
Iron, dissolved (filtered)	mg/L	0.3	0.15	0.924	0.634	1.71	1.69	1.07	1.06	
Manganese, total (unfiltered)	µg/L	--	--	205.	217.	218.	212.	254.	257.	
Manganese, dissolved (filtered)	µg/L	50.	25.	201.	178.	219.	215.	204.	205.	
Acetylene	µg/L	--	--	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U	
Ethane	µg/L	--	--	2.6	4.	2.3	2.3	2.4 J	2.5 J	
Ethene	µg/L	--	--	5.	5.4	1.5 J	1.6 J	<1.2 U	<1.2 U	
Methane	µg/L	--	--	250.	330.	140.	140.	310.	330.	
Sulfate(as SO ₄)	mg/L	250.	125.	69.	57.	56.	55.	56.	56.	
Total Organic Carbon	mg/L	--	--	3.3	16.	2.1	2.6	2.4	2.4	
VOCs										
1,1,1-Trichloroethane	µg/L	200.	40.	<3.0 U	<15 U	<6.0 U	<6.0 U	<3 U	<3 U	
1,1-Dichloroethane	µg/L	850.	85.	93.	90.	73.	71.	48.	45.	
1,1-Dichloroethene	µg/L	7.	0.7	14.	<12 U	11 J	11 J	7.6 J	8.7 J	
1,2,3-Trichlorobenzene	µg/L	--	--	4.1 J	110.	<8.0 U	<8.0 U	<2.5 U	<2.5 U	
1,2,4-Trichlorobenzene	µg/L	70.	14.	<2.9 U	100.	<5.8 U	<5.8 U	<2 U	<2 U	
1,2,4-Trimethylbenzene	µg/L	480.	96.	<2.4 U	45.	<4.8 U	<4.8 U	<2.5 U	<2.5 U	
1,2-Dichlorobenzene	µg/L	600.	60.	<2.5 U	56.	<5.0 U	<5.0 U	<3 U	<3 U	
1,2-Dichloroethane	µg/L	5.	0.5	<2.4 U	<12 U	<4.8 U	<4.8 U	<2 U	<2 U	
1,3,5-Trimethylbenzene	µg/L	480.	96.	<2.2 U	51.	<4.4 U	<4.4 U	<3 U	<3 U	
1,3-Dichlorobenzene	µg/L	600.	120.	<2.1 U	54.	<4.2 U	<4.2 U	<3 U	<3 U	
1,4-Dioxane	µg/L	3.	0.3	NA	NA	NA	NA	NA	NA	
2-Butanone (MEK)	µg/L	4000.	800.	<80 U	<400 U	<160 U	<160 U	<40 U	<40 U	
2-Chlorotoluene	µg/L	--	--	<2.5 U	45.	<5.0 U	<5.0 U	<3 U	<3 U	
4-Chlorotoluene	µg/L	--	--	<2.9 U	41 J	<5.8 U	<5.8 U	<2.5 U	<2.5 U	
Acetone	µg/L	9000.	1800.	<130 UZ	<650 UZ	<260 UZ	<260 UZ	<45 U	<45 U	
Benzene	µg/L	5.	0.5	<1.9 U	<9.5 U	<3.8 U	<3.8 U	<3 U	<3 U	
Bromobenzene	µg/L	--	--	<3.0 U	33 J	<6.0 U	<6.0 U	<2 U	<2 U	
Chlorobenzene	µg/L	--	--	6.7 J	25 J	<4.8 U	<4.8 U	3.7 J	3 J	
Chloroethane	µg/L	400.	80.	<4.0 U	<20 U	<8.0 U	<8.0 U	<3 U	<3 U	
Chloromethane	µg/L	30.	3.	<4.0 U	<20 U	<8.0 U	<8.0 U	<2.5 U	<2.5 U	
cis-1,2-Dichloroethene	µg/L	70.	7.	1000.	1000.	960.	950.	710.	680.	
Ethylbenzene	µg/L	700.	140.	<1.9 U	26 J	<3.8 U	<3.8 U	<3 U	<3 U	
Hexachlorobutadiene	µg/L	--	--	<7.0 U	71 J	<14 U	<14 U	<3.5 U	<3.5 U	
Isopropylbenzene	µg/L	--	--	<6.0 U	41 J	<12 U	<12 U	<2.5 U	<2.5 U	
m & p-Xylene	µg/L	2000.	400.	<5.0 U	46 J	<10 U	<10 U	<6 U	<6 U	
Methyl tert-butyl ether	µg/L	60.	12.	<4.0 U	<20 U	<8.0 U	<8.0 U	<2 U	<2 U	
Methylene chloride	µg/L	5.	0.5	<15 U	<75 U	<30 U	<30 U	<3 U	<3 U	
Naphthalene	µg/L	100.	10.	<4.0 U	61 J	<8.0 U	<8.0 U	<2.5 U	<2.5 U	
n-Butylbenzene	µg/L	--	--	<2.1 U	92.	<4.2 U	<4.2 U	<2.5 U	<2.5 U	
n-Propylbenzene	µg/L	--	--	<2.2 U	53.	<4.4 U	<4.4 U	<2.5 U	<2.5 U	
o-Xylene	µg/L	2000.	400.	<2.7 U	21 J	<5.4 U	<5.4 U	<2.5 U	<2.5 U	
p-Isopropyltoluene	µg/L	--	--	<3.0 U	64.	<6.0 U	<6.0 U	<3 U	<3 U	
sec-Butylbenzene	µg/L	--	--	<2.4 U	71.	<4.8 U	<4.8 U	<2.5 U	<2.5 U	
Styrene	µg/L	100.	10.	<2.0 U	17 J	<4.0 U	<4.0 U	<2.5 U	<2.5 U	
tert-Butylbenzene	µg/L	--	--	<2.5 U	62.	<5.0 U	<5.0 U	<3 U	<3 U	
Tetrachloroethene	µg/L	5.	0.05	<3.0 U	28 J	<6.0 U	<6.0 U	<3 U	<3 U	
Tetrahydrofuran	µg/L	50.	10.	<70 U	<350 U	<140 U	<140 U	<30 U	<30 U	
Toluene	µg/L	800.	160.	<2.7 U	<14 U	<5.4 U	<5.4 U	<3 U	<3 U	
trans-1,2-Dichloroethene	µg/L	100.	20.	280.	260.	230.	240.	110.	110.	
Trichloroethene	µg/L	5.	0.5	2900.	2800.	2100.	2100.	1300.	1200.	
Vinyl acetate	µg/L	--	--	<60 U	<300 U	<120 U	<120 U	<25 U	<25 U	
Vinyl chloride	µg/L	0.2	0.02	13.	23 J	9.5 J	9.8 J	6.6	5.6	

Table 3. Groundwater Quality Data, Oconomowoc Electroplating Company Inc. (OECI) Superfund Site Monitoring Wells

	Date Sampled				5/11/2016	5/11/2016	11/1/2016	11/1/2016	5/10/2017	5/10/2017
	Units	NR140 ES	NR140 PAL	MW-105S	MW-105S Dup	MW-105S	MW-105S Dup	MW-105S	MW-105S Dup	
Field Parameters										
Dissolved Oxygen (DO)	mg/L	--	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Oxidation Reduction Potential	millivolts	--	--	-17	-17	-67	-66	-50	-50	
pH	pH-units	--	--	7.04	7.04	7.03	7.02	7.22	7.22	
Specific Conductivity	umhos/cm	--	--	1530	1520	1760	1770	944	944	
Temperature	deg-C	--	--	12.88	12.86	9.00	9.00	9.00	9.00	
Turbidity	ntu	--	--	13.4	13.9	0.	0.	0.	0.	
Natural Attenuation Parameters										
Alkalinity, total (as CaCO ₃)	mg/L	--	--	410.	410.	420.	420.	430.	430.	
Chloride (as Cl)	mg/L	250.	125.	320.	250.	360.	360.	200.	200.	
Iron, total (unfiltered)	mg/L	--	--	2.27	2.34	3.41	4.71	3.28	3.22	
Iron, dissolved (filtered)	mg/L	0.3	0.15	2.84 M	1.51	1.54	1.55	1.45	1.46	
Manganese, total (unfiltered)	µg/L	--	--	174.	169.	221.	222.	166.	165.	
Manganese, dissolved (filtered)	µg/L	50.	25.	175.	172.	234.	234.	163.	163.	
Acetylene	µg/L	--	--	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U	
Ethane	µg/L	--	--	2.3	2.3	0.6 J	1.3	<0.40 U	<0.40 U	
Ethene	µg/L	--	--	0.67 J	0.68 J	<0.50 U	<0.50 U	<0.50 U	<0.50 U	
Methane	µg/L	--	--	240.	230.	21.	41.	9.7	15.	
Sulfate(as SO ₄)	mg/L	250.	125.	56.	57.	48.	48.	52.	53.	
Total Organic Carbon	mg/L	--	--	3.	3.8	2.8	2.8	3.1	4.	
VOCs										
1,1,1-Trichloroethane	µg/L	200.	40.	<6.0 U	<6.0 U	<5.0 U	<5.0 U	<10 U	<10 U	
1,1-Dichloroethane	µg/L	850.	85.	87.	78.	56.	61.	110.	110.	
1,1-Dichloroethene	µg/L	7.	0.7	12 J	13 J	10 J	11 J	20 J	17 J	
1,2,3-Trichlorobenzene	µg/L	--	--	<5.0 U	<5.0 U	<4.0 U	<4.0 U	<8.0 U	<8.0 U	
1,2,4-Trichlorobenzene	µg/L	70.	14.	<4.0 U	<4.0 U	<4.0 U	<4.0 U	<8.0 U	<8.0 U	
1,2,4-Trimethylbenzene	µg/L	480.	96.	<5.0 U	<5.0 U	<4.0 U	<4.0 U	<8.0 U	<8.0 U	
1,2-Dichlorobenzene	µg/L	600.	60.	<6.0 U	<6.0 U	<4.0 U	<4.0 U	<8.0 U	<8.0 U	
1,2-Dichloroethane	µg/L	5.	0.5	<4.0 U	<4.0 U	<5.0 U	<5.0 U	<10 U	<10 U	
1,3,5-Trimethylbenzene	µg/L	480.	96.	<6.0 U	<6.0 U	<5.0 U	<5.0 U	<10 U	<10 U	
1,3-Dichlorobenzene	µg/L	600.	120.	<6.0 U	<6.0 U	<4.0 U	<4.0 U	<8.0 U	<8.0 U	
1,4-Dioxane	µg/L	3.	0.3	NA	NA	<700 U	<700 U	<1400 U	<1400 U	
2-Butanone (MEK)	µg/L	4000.	800.	<80 U	<80 U	<50 U	<50 U	<100 U	<100 U	
2-Chlorotoluene	µg/L	--	--	<6.0 U	<6.0 U	<3.0 U	<3.0 U	<6.0 U	<6.0 U	
4-Chlorotoluene	µg/L	--	--	<5.0 U	<5.0 U	<4.0 U	<4.0 U	<8.0 U	<8.0 U	
Acetone	µg/L	9000.	1800.	2900 B	3100 B	44 JB	46 JB	200 B	180 JB	
Benzene	µg/L	5.	0.5	<6.0 U	<6.0 U	<1.8 U	<1.8 U	<3.6 U	<3.6 U	
Bromobenzene	µg/L	--	--	<4.0 U	<4.0 U	<4.0 U	<4.0 U	<8.0 U	<8.0 U	
Chlorobenzene	µg/L	--	--	<4.0 U	<4.0 U	<4.0 U	<4.0 U	<8.0 U	<8.0 U	
Chloroethane	µg/L	400.	80.	<6.0 U	<6.0 U	<7.0 U	<7.0 U	<14 U	<14 U	
Chloromethane	µg/L	30.	3.	<5.0 U	<5.0 U	<4.0 U	<4.0 U	<8.0 U	<8.0 U	
cis-1,2-Dichloroethene	µg/L	70.	7.	980.	920.	990.	1000.	2000.	2100.	
Ethylbenzene	µg/L	700.	140.	<6.0 U	<6.0 U	<4.0 U	<4.0 U	<8.0 U	<8.0 U	
Hexachlorobutadiene	µg/L	--	--	<7.0 U	<7.0 U	<5.0 U	<5.0 U	<10 U	<10 U	
Isopropylbenzene	µg/L	--	--	<5.0 U	<5.0 U	<4.0 U	<4.0 U	<8.0 U	<8.0 U	
m & p-Xylene	µg/L	2000.	400.	<12 U	<12 U	<7.0 U	<7.0 U	<14 U	<14 U	
Methyl tert-butyl ether	µg/L	60.	12.	<4.0 U	<4.0 U	<4.0 U	<4.0 U	<8.0 U	<8.0 U	
Methylene chloride	µg/L	5.	0.5	170.	140.	<5.0 U	<5.0 U	16 JB	13 JB	
Naphthalene	µg/L	100.	10.	<5.0 U	<5.0 U	<3.0 U	<3.0 U	<6.0 U	<6.0 U	
n-Butylbenzene	µg/L	--	--	<5.0 U	<5.0 U	<3.0 U	<3.0 U	<6.0 U	<6.0 U	
n-Propylbenzene	µg/L	--	--	<5.0 U	<5.0 U	<4.0 U	<4.0 U	<8.0 U	<8.0 U	
o-Xylene	µg/L	2000.	400.	<5.0 U	<5.0 U	<4.0 U	<4.0 U	<8.0 U	<8.0 U	
p-Isopropyltoluene	µg/L	--	--	<6.0 U	<6.0 U	<4.0 U	<4.0 U	<8.0 U	<8.0 U	
sec-Butylbenzene	µg/L	--	--	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<10 U	<10 U	
Styrene	µg/L	100.	10.	<5.0 U	<5.0 U	<3.0 U	<3.0 U	<6.0 U	<6.0 U	
tert-Butylbenzene	µg/L	--	--	<6.0 U	<6.0 U	<4.0 U	<4.0 U	<8.0 U	<8.0 U	
Tetrachloroethene	µg/L	5.	0.05	<6.0 U	<6.0 U	<5.0 U	<5.0 U	<10 U	<10 U	
Tetrahydrofuran	µg/L	50.	10.	<60 U	<60 U	51 JB	<40 U	150 JB	150 JB	
Toluene	µg/L	800.	160.	<6.0 U	<6.0 U	<4.0 U	<4.0 U	<8.0 U	<8.0 U	
trans-1,2-Dichloroethene	µg/L	100.	20.	160.	140.	100.	120.	220.	240.	
Trichloroethene	µg/L	5.	0.5	1200.	1100.	950.	1000.	1200.	1200.	
Vinyl acetate	µg/L	--	--	<50 U	<50 U	<22 U	<22 U	<44 U	<44 U	
Vinyl chloride	µg/L	0.2	0.02	6.4	3.0 J	4.1 J	5.2 J	7.9 J	6.1 J	

Table 3. Groundwater Quality Data, Oconomowoc Electroplating Company Inc. (OECI) Superfund Site Monitoring Wells

	Date Sampled			12/10/2014	5/5/2015	11/03/2015	5/11/2016	11/1/2016	5/10/2017
	Units	NR140 ES	NR140 PAL	MW-105D	MW-105D	MW-105D	MW-105D	MW-105D	MW-105D
Field Parameters									
Dissolved Oxygen (DO)	mg/L	--	--	0.43	0.00	0.29	0.00	1.14	0.68
Oxidation Reduction Potential	millivolts	--	--	-83	-69	-67	-53	-82	-63
pH	pH-units	--	--	7.65	7.30	7.46	7.16	7.31	7.29
Specific Conductivity	umhos/cm	--	--	1050	1420	1120	1400	1050	1170
Temperature	deg-C	--	--	7.88	8.53	15.53	12.41	6.90	10.59
Turbidity	ntu	--	--	0.	7.3	5.9	48.1	0.	0.
Natural Attenuation Parameters									
Alkalinity, total (as CaCO ₃)	mg/L	--	--	390.	390.	390.	420.	430.	430.
Chloride (as Cl)	mg/L	250.	125.	440.	190.	190.	210.	190.	190.
Iron, total (unfiltered)	mg/L	--	--	7.44	1.78	1.52	3.68	3.04	3.02
Iron, dissolved (filtered)	mg/L	0.3	0.15	0.924	1.77	1.36	1.81	1.33	1.46
Manganese, total (unfiltered)	µg/L	--	--	205.	58.8	65.6	55.4	56.8	49.6
Manganese, dissolved (filtered)	µg/L	50.	25.	201.	66.9	51.	53.3	57.7	46.5
Acetylene	µg/L	--	--	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U
Ethane	µg/L	--	--	<0.60 U	<0.60 U	<0.9 U	<0.40 U	<0.40 U	<0.40 U
Ethene	µg/L	--	--	<0.90 U	<0.90 U	<1.2 U	<0.50 U	<0.50 U	<0.50 U
Methane	µg/L	--	--	250.	59.	150.	92.	58.	13.
Sulfate(as SO ₄)	mg/L	250.	125.	69.	57.	58.	61.	51.	52.
Total Organic Carbon	mg/L	--	--	3.3	2.	1.3 J	3.8	2.4	2.7
VOCs									
1,1,1-Trichloroethane	µg/L	200.	40.	<0.030 U	<0.30 U	<0.6 U	<0.30 U	<0.25 U	<0.25 U
1,1-Dichloroethane	µg/L	850.	85.	11.	6.2	77.	5.8	5.1	6.4
1,1-Dichloroethene	µg/L	7.	0.7	1.6	1.1	6.9	1.1 J	1.1 J	1.6
1,2,3-Trichlorobenzene	µg/L	--	--	<0.040 U	<0.40 U	<0.5 U	<0.25 U	<0.20 U	<0.20 U
1,2,4-Trichlorobenzene	µg/L	70.	14.	<0.029 U	<0.29 U	<0.4 U	<0.20 U	<0.20 U	<0.20 U
1,2,4-Trimethylbenzene	µg/L	480.	96.	<0.024 U	<0.24 U	<0.5 U	<0.25 U	<0.20 U	<0.20 U
1,2-Dichlorobenzene	µg/L	600.	60.	<0.025 U	<0.25 U	<0.6 U	<0.30 U	<0.20 U	<0.20 U
1,2-Dichloroethane	µg/L	5.	0.5	0.16	<0.24 U	0.93 J	<0.20 U	<0.25 U	<0.25 U
1,3,5-Trimethylbenzene	µg/L	480.	96.	<0.022 U	<0.22 U	<0.6 U	<0.30 U	<0.25 U	<0.25 U
1,3-Dichlorobenzene	µg/L	600.	120.	<0.021 U	<0.21 U	<0.6 U	<0.30 U	<0.20 U	<0.20 U
1,4-Dioxane	µg/L	3.	0.3	NA	NA	NA	NA	<35 U	<35 U
2-Butanone (MEK)	µg/L	4000.	800.	<0.80 U	<8.0 U	<8 U	<4.0 U	<2.5 U	<2.5 U
2-Chlorotoluene	µg/L	--	--	<0.025 U	<0.25 U	<0.6 U	<0.30 U	<0.15 U	<0.15 U
4-Chlorotoluene	µg/L	--	--	<0.029 U	<0.29 U	<0.5 U	<0.25 U	<0.20 U	<0.20 U
Acetone	µg/L	9000.	1800.	<1.3 UZ	<13 UZ	<9 U	110 B	<1.5 U	5.2 B
Benzene	µg/L	5.	0.5	<0.019 U	<0.19 U	<0.6 U	<0.30 U	<0.090 U	<0.090 U
Bromobenzene	µg/L	--	--	<0.030 U	<0.30 U	<0.4 U	<0.20 U	<0.20 U	<0.20 U
Chlorobenzene	µg/L	--	--	<0.024 U	<0.24 U	<0.4 U	<0.20 U	<0.20 U	<0.20 U
Chloroethane	µg/L	400.	80.	<0.040 U	<0.40 U	1.3 J	<0.30 U	<0.35 U	<0.35 U
Chloromethane	µg/L	30.	3.	0.061 JB	<0.40 U	<0.5 U	<0.25 U	<0.20 U	0.25 JB
cis-1,2-Dichloroethene	µg/L	70.	7.	110.	69.	510.	63.	55.	68.
Ethylbenzene	µg/L	700.	140.	<0.019 U	<0.19 U	<0.6 U	<0.30 U	<0.20 U	<0.20 U
Hexachlorobutadiene	µg/L	--	--	<0.070 U	<0.70 U	<0.7 U	<0.35 U	<0.25 U	<0.25 U
Isopropylbenzene	µg/L	--	--	<0.060 U	<0.60 U	<0.5 U	<0.25 U	<0.20 U	<0.20 U
m & p-Xylene	µg/L	2000.	400.	<0.050 U	<0.50 U	<1.2 U	<0.60 U	<0.35 U	<0.35 U
Methyl tert-butyl ether	µg/L	60.	12.	0.15	<0.40 U	<0.4 U	0.24 J	0.22 J	0.29 J
Methylene chloride	µg/L	5.	0.5	<0.15 U	<1.5 U	<0.6 U	9.6	<0.25 U	2.6
Naphthalene	µg/L	100.	10.	<0.040 U	<0.40 U	<0.5 U	<0.25 U	<0.15 U	<0.15 U
n-Butylbenzene	µg/L	--	--	<0.021 U	<0.21 U	<0.5 U	<0.25 U	<0.15 U	<0.15 U
n-Propylbenzene	µg/L	--	--	<0.022 U	<0.22 U	<0.5 U	<0.25 U	<0.20 U	<0.20 U
o-Xylene	µg/L	2000.	400.	<0.027 U	<0.27 U	<0.5 U	<0.25 U	<0.20 U	<0.20 U
p-Isopropyltoluene	µg/L	--	--	<0.030 U	<0.30 U	<0.6 U	<0.30 U	<0.20 U	<0.20 U
sec-Butylbenzene	µg/L	--	--	<0.024 U	<0.24 U	<0.5 U	<0.25 U	<0.25 U	<0.25 U
Styrene	µg/L	100.	10.	<0.020 U	<0.20 U	<0.5 U	<0.25 U	<0.15 U	<0.15 U
tert-Butylbenzene	µg/L	--	--	<0.025 U	<0.25 U	<0.6 U	<0.30 U	<0.20 U	<0.20 U
Tetrachloroethene	µg/L	5.	0.05	<0.030 U	<0.30 U	<0.6 U	<0.30 U	<0.25 U	<0.25 U
Tetrahydrofuran	µg/L	50.	10.	<0.70 U	<7.0 U	<6 U	3.1 JZ,B	<2.0 U	<2.0 U
Toluene	µg/L	800.	160.	<0.027 U	<0.27 U	<0.6 U	<0.30 U	<0.20 U	<0.20 U
trans-1,2-Dichloroethene	µg/L	100.	20.	1.7	2.2	36.	1.6	1.4	1.3
Trichloroethene	µg/L	5.	0.5	1.4	1.8	3.5	0.56	0.78 J	0.55 J
Vinyl acetate	µg/L	--	--	<0.60 U	<6.0 U	<5 U	<2.5 U	<1.1 U	<1.1 U
Vinyl chloride	µg/L	0.2	0.02	2.	1.7	8.3	1.7	2.	2.9

Table 3. Groundwater Quality Data, Oconomowoc Electroplating Company Inc. (OECI) Superfund Site Monitoring Wells

	Date Sampled			12/10/2014	5/5/2015	11/03/2015	5/11/2016	11/1/2016	5/10/2017
	Units	NR140 ES	NR140 PAL	MW-105B	MW-105B	MW-105B	MW-105B	MW-105B	MW-105B
Field Parameters									
Dissolved Oxygen (DO)	mg/L	--	--	3.53	4.60	0.40	0.00	6.49	1.15
Oxidation Reduction Potential	millivolts	--	--	-134	-31	-120	-9	-161	-50
pH	pH-units	--	--	7.86	7.18	7.71	7.57	7.58	7.52
Specific Conductivity	umhos/cm	--	--	756	945	791	764	815	784
Temperature	deg-C	--	--	7.54	8.91	13.02	18.52	6.90	10.76
Turbidity	ntu	--	--	0.	4.7	0.	4.1	0.	0.
Natural Attenuation Parameters									
Alkalinity, total (as CaCO ₃)	mg/L	--	--	370.	350.	380.	390.	400.	400.
Chloride (as Cl)	mg/L	250.	125.	110.	95.	90.	84.	94.	91.
Iron, total (unfiltered)	mg/L	--	--	2.82	0.311	2.8	0.389	3.7	0.171
Iron, dissolved (filtered)	mg/L	0.3	0.15	2.82	0.263	2.67 M	0.247	3.23	0.0775 J
Manganese, total (unfiltered)	µg/L	--	--	519.	461.	394.	372.	404.	18.2
Manganese, dissolved (filtered)	µg/L	50.	25.	502.	489.	313.	225.	415.	11.9
Acetylene	µg/L	--	--	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U
Ethane	µg/L	--	--	1.1 J	<0.60 U	1.2 J	<0.40 U	0.44 J	<0.40 U
Ethene	µg/L	--	--	<0.90 U	<0.90 U	<1.2 U	<0.50 U	<0.50 U	<0.50 U
Methane	µg/L	--	--	1400.	190.	2600.	470.	410.	13.
Sulfate(as SO ₄)	mg/L	250.	125.	<1.0 U	<1.0 U	<1 U	0.73 J	<1.0 U	<1.0 U
Total Organic Carbon	mg/L	--	--	0.90 J	0.58 J	<0.4 U	1.9	1.1 J	1.3 J
VOCs									
1,1,1-Trichloroethane	µg/L	200.	40.	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
1,1-Dichloroethane	µg/L	850.	85.	<0.024 U	<0.024 U	<0.06 U	<0.060 U	<0.060 U	<0.060 U
1,1-Dichloroethene	µg/L	7.	0.7	<0.024 U	<0.024 U	<0.07 U	<0.070 U	<0.060 U	<0.060 U
1,2,3-Trichlorobenzene	µg/L	--	--	<0.040 U	<0.040 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
1,2,4-Trichlorobenzene	µg/L	70.	14.	<0.029 U	<0.029 U	<0.04 U	<0.040 U	<0.040 U	<0.040 U
1,2,4-Trimethylbenzene	µg/L	480.	96.	<0.024 U	<0.024 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
1,2-Dichlorobenzene	µg/L	600.	60.	<0.025 U	<0.025 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
1,2-Dichloroethane	µg/L	5.	0.5	<0.024 U	<0.024 U	<0.04 U	<0.040 U	<0.050 U	<0.050 U
1,3,5-Trimethylbenzene	µg/L	480.	96.	<0.022 U	<0.022 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
1,3-Dichlorobenzene	µg/L	600.	120.	<0.021 U	<0.021 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
1,4-Dioxane	µg/L	3.	0.3	NA	NA	NA	NA	11 J	15 J
2-Butanone (MEK)	µg/L	4000.	800.	<0.80 U	<0.80 U	<0.8 U	<0.80 U	<0.50 U	<0.50 U
2-Chlorotoluene	µg/L	--	--	<0.025 U	<0.025 U	<0.06 U	<0.060 U	<0.030 U	<0.030 U
4-Chlorotoluene	µg/L	--	--	<0.029 U	<0.029 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
Acetone	µg/L	9000.	1800.	<1.3 UZ	<1.3 UZ	<0.9 U	<0.90 U	<0.30 U	0.47 JB
Benzene	µg/L	5.	0.5	<0.019 U	<0.019 U	<0.06 U	<0.060 U	0.019 J	<0.018 U
Bromobenzene	µg/L	--	--	<0.030 U	<0.030 U	<0.04 U	<0.040 U	<0.040 U	<0.040 U
Chlorobenzene	µg/L	--	--	<0.024 U	<0.024 U	<0.04 U	<0.040 U	<0.040 U	<0.040 U
Chloroethane	µg/L	400.	80.	<0.040 U	<0.040 U	<0.06 U	<0.060 U	<0.070 U	<0.070 U
Chloromethane	µg/L	30.	3.	0.097 JB	<0.040 U	<0.05 U	<0.050 U	<0.040 U	0.095 JB
cis-1,2-Dichloroethene	µg/L	70.	7.	0.081 J	0.034 J	0.075 J	<0.060 U	<0.070 U	<0.070 U
Ethylbenzene	µg/L	700.	140.	<0.019 U	<0.019 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
Hexachlorobutadiene	µg/L	--	--	<0.070 U	<0.070 U	<0.07 U	<0.070 U	<0.050 U	<0.050 U
Isopropylbenzene	µg/L	--	--	<0.060 U	<0.060 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
m & p-Xylene	µg/L	2000.	400.	<0.050 U	<0.050 U	<0.12 U	<0.12 U	<0.070 U	<0.070 U
Methyl tert-butyl ether	µg/L	60.	12.	<0.040 U	<0.040 U	<0.04 U	<0.040 U	<0.040 U	<0.040 U
Methylene chloride	µg/L	5.	0.5	<0.15 U	<0.15 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
Naphthalene	µg/L	100.	10.	<0.040 U	<0.040 U	<0.05 U	<0.050 U	<0.030 U	<0.030 U
n-Butylbenzene	µg/L	--	--	<0.021 U	<0.021 U	<0.05 U	<0.050 U	<0.030 U	<0.030 U
n-Propylbenzene	µg/L	--	--	<0.022 U	<0.022 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
o-Xylene	µg/L	2000.	400.	<0.027 U	<0.027 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
p-Isopropyltoluene	µg/L	--	--	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
sec-Butylbenzene	µg/L	--	--	<0.024 U	<0.024 U	<0.05 U	<0.050 U	<0.050 U	<0.050 U
Styrene	µg/L	100.	10.	<0.020 U	<0.020 U	<0.05 U	<0.050 U	<0.030 U	<0.030 U
tert-Butylbenzene	µg/L	--	--	<0.025 U	<0.025 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
Tetrachloroethene	µg/L	5.	0.05	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
Tetrahydrofuran	µg/L	50.	10.	<0.70 U	<0.70 U	<0.6 U	0.67 JB,Z	<0.40 U	<0.40 U
Toluene	µg/L	800.	160.	<0.027 U	<0.027 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
trans-1,2-Dichloroethene	µg/L	100.	20.	<0.040 U	<0.040 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
Trichloroethene	µg/L	5.	0.5	0.056 J	<0.020 U	<0.03 U	<0.030 U	<0.050 U	<0.050 U
Vinyl acetate	µg/L	--	--	<0.60 U	<0.60 U	<0.5 U	<0.50 U	<0.22 U	<0.22 U
Vinyl chloride	µg/L	0.2	0.02	<0.019 U	<0.019 U	0.028 J	<0.016 U	<0.019 U	<0.019 U

Table 3. Groundwater Quality Data, Oconomowoc Electroplating Company Inc. (OECI) Superfund Site Monitoring Wells

	Date Sampled			12/10/2014	5/5/2015	11/05/2015	5/18/2016	11/1/2016	5/9/2017
	Units	NR140 ES	NR140 PAL	TW-2021	TW-2021	TW-2021	TW-2021	TW-2021	TW-2021
Field Parameters									
Dissolved Oxygen (DO)	mg/L	--	--	2.63	1.40	0.37	2.55	0.00	0.34
Oxidation Reduction Potential	millivolts	--	--	-18	-14	-10	55	-29	45
pH	pH-units	--	--	7.55	7.48	6.86	7.02	6.93	7.34
Specific Conductivity	umhos/cm	--	--	1040	1180	980	1190	1230	1520
Temperature	deg-C	--	--	8.66	11.28	14.54	11.28	8.14	10.07
Turbidity	ntu	--	--	8.31	24.3	12.2	0.	0.	0.
Natural Attenuation Parameters									
Alkalinity, total (as CaCO ₃)	mg/L	--	--	350.	310.	350.	370.	380.	390.
Chloride (as Cl)	mg/L	250.	125.	230.	290.	230.	260.	210.	210.
Iron, total (unfiltered)	mg/L	--	--	0.258	0.29	0.325	0.169	0.191	0.144
Iron, dissolved (filtered)	mg/L	0.3	0.15	0.103	0.0537	0.107	0.126	0.122 J	0.107 J
Manganese, total (unfiltered)	µg/L	--	--	563.	543.	591.	486.	441.	371.
Manganese, dissolved (filtered)	µg/L	50.	25.	410.	468.	515.	448.	431.	328.
Acetylene	µg/L	--	--	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U
Ethane	µg/L	--	--	<0.60 U	<0.60 U	<0.9 U	<0.40 U	<0.40 U	<0.40 U
Ethene	µg/L	--	--	<0.90 U	<0.90 U	<1.2 U	<0.50 U	<0.50 U	<0.50 U
Methane	µg/L	--	--	3.1	5.	2.6	4.4	2.7	0.4 J
Sulfate(as SO ₄)	mg/L	250.	125.	55.	44.	39.	51.	39.	38.
Total Organic Carbon	mg/L	--	--	2.9	2.	0.76 J	3.6	2.6	3.5
VOCs									
1,1,1-Trichloroethane	µg/L	200.	40.	0.32	0.29	0.27	0.24	0.25	0.22
1,1-Dichloroethane	µg/L	850.	85.	0.1	0.1	0.082 J	0.13 J	0.14 J	0.15 J
1,1-Dichloroethene	µg/L	7.	0.7	0.08 J	0.067 J	0.072 J	0.092 J	0.079 J	0.086 J
1,2,3-Trichlorobenzene	µg/L	--	--	<0.040 U	<0.040 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
1,2,4-Trichlorobenzene	µg/L	70.	14.	<0.029 U	<0.029 U	<0.04 U	<0.040 U	<0.040 U	<0.040 U
1,2,4-Trimethylbenzene	µg/L	480.	96.	<0.024 U	<0.024 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
1,2-Dichlorobenzene	µg/L	600.	60.	<0.025 U	<0.025 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
1,2-Dichloroethane	µg/L	5.	0.5	<0.024 U	<0.024 U	<0.04 U	<0.040 U	<0.050 U	<0.050 U
1,3,5-Trimethylbenzene	µg/L	480.	96.	<0.022 U	<0.022 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
1,3-Dichlorobenzene	µg/L	600.	120.	0.11	0.046 J	<0.06 U	<0.060 U	<0.040 U	<0.040 U
1,4-Dioxane	µg/L	3.	0.3	NA	NA	NA	NA	<7.0 U	<7.0 U
2-Butanone (MEK)	µg/L	4000.	800.	<0.80 U	<0.80 U	<0.8 U	<0.80 U	<0.50 U	<0.50 U
2-Chlorotoluene	µg/L	--	--	<0.025 U	<0.025 U	<0.06 U	<0.060 U	<0.030 U	<0.030 U
4-Chlorotoluene	µg/L	--	--	<0.029 U	<0.029 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
Acetone	µg/L	9000.	1800.	<1.3 UZ	<1.3 UZ	<0.9 U	<0.90 U	<0.30 U	0.47 JB
Benzene	µg/L	5.	0.5	<0.019 U	<0.019 U	<0.06 U	<0.060 U	0.023 J	0.023 J
Bromobenzene	µg/L	--	--	<0.030 U	<0.030 U	<0.04 U	<0.040 U	<0.040 U	<0.040 U
Chlorobenzene	µg/L	--	--	0.55	0.54	0.61	0.45	0.56	0.47
Chloroethane	µg/L	400.	80.	<0.040 U	<0.040 U	<0.06 U	<0.060 U	<0.070 U	<0.070 U
Chloromethane	µg/L	30.	3.	0.06 JB	<0.040 U	<0.05 U	0.13 J	<0.040 U	0.13 JB
cis-1,2-Dichloroethene	µg/L	70.	7.	11.	12.	8.6	19.	17.	20.
Ethylbenzene	µg/L	700.	140.	<0.019 U	<0.019 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
Hexachlorobutadiene	µg/L	--	--	<0.070 U	<0.070 U	<0.07 U	<0.070 U	<0.050 U	<0.050 U
Isopropylbenzene	µg/L	--	--	<0.060 U	<0.060 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
m & p-Xylene	µg/L	2000.	400.	<0.050 U	<0.050 U	<0.12 U	<0.12 U	<0.070 U	<0.070 U
Methyl tert-butyl ether	µg/L	60.	12.	<0.040 U	<0.040 U	<0.04 U	<0.040 U	<0.040 U	<0.040 U
Methylene chloride	µg/L	5.	0.5	<0.15 U	<0.15 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
Naphthalene	µg/L	100.	10.	<0.040 U	<0.040 U	<0.05 U	<0.050 U	<0.030 U	<0.030 U
n-Butylbenzene	µg/L	--	--	<0.021 U	<0.021 U	<0.05 U	<0.050 U	<0.030 U	<0.030 U
n-Propylbenzene	µg/L	--	--	<0.022 U	<0.022 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
o-Xylene	µg/L	2000.	400.	<0.027 U	<0.027 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
p-Isopropyltoluene	µg/L	--	--	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
sec-Butylbenzene	µg/L	--	--	<0.024 U	<0.024 U	<0.05 U	<0.050 U	<0.050 U	<0.050 U
Styrene	µg/L	100.	10.	<0.020 U	<0.020 U	<0.05 U	<0.050 U	<0.030 U	<0.030 U
tert-Butylbenzene	µg/L	--	--	<0.025 U	<0.025 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
Tetrachloroethene	µg/L	5.	0.05	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
Tetrahydrofuran	µg/L	50.	10.	<0.70 U	<0.70 U	<0.6 U	<0.60 U	<0.40 U	<0.40 U
Toluene	µg/L	800.	160.	<0.027 U	<0.027 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
trans-1,2-Dichloroethene	µg/L	100.	20.	1.	1.	0.98	1.5	1.2	0.97
Trichloroethene	µg/L	5.	0.5	13.	12.	11.	12.	11.	12.
Vinyl acetate	µg/L	--	--	<0.60 U	<0.60 U	<0.5 U	<0.50 U	<0.22 U	<0.22 U
Vinyl chloride	µg/L	0.2	0.02	0.023 J	0.023 J	0.022 J	<0.016 U	<0.019 U	<0.019 U

Table 3. Groundwater Quality Data, Oconomowoc Electroplating Company Inc. (OECI) Superfund Site Monitoring Wells

	Date Sampled			12/11/2014	5/6/2015	11/04/2015	5/18/2016	11/2/2016	5/10/2017
	Units	NR140 ES	NR140 PAL	OW-6	OW-6	OW-06	OW-6	OW-6	OW-6
Field Parameters									
Dissolved Oxygen (DO)	mg/L	--	--	0.53	0.38	0.24	3.40	0.44	0.12
Oxidation Reduction Potential	millivolts	--	--	-119	-34	-150	163	-166	11
pH	pH-units	--	--	7.34	6.74	9.51	9.18	7.48	7.72
Specific Conductivity	umhos/cm	--	--	731	743	485	637	951	778
Temperature	deg-C	--	--	8.73	9.88	18.83	12.40	9.64	10.56
Turbidity	ntu	--	--	3.73	1.2	0.	0.	0.	0.
Natural Attenuation Parameters									
Alkalinity, total (as CaCO ₃)	mg/L	--	--	220.	260.	190.	240.	350.	310.
Chloride (as Cl)	mg/L	250.	125.	160.	160.	120.	130.	150.	140.
Iron, total (unfiltered)	mg/L	--	--	1.16	0.299	0.13	0.416	4.	0.534
Iron, dissolved (filtered)	mg/L	0.3	0.15	0.477	0.177	0.0923	<0.010 U	3.97	<0.059 U
Manganese, total (unfiltered)	µg/L	--	--	46.4	85.1	9.9	16.6	76.4	50.4
Manganese, dissolved (filtered)	µg/L	50.	25.	41.3	72.4	6.3	4.8 J	78.6	8.3
Acetylene	µg/L	--	--	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U
Ethane	µg/L	--	--	<0.60 U	<0.60 U	<0.9 U	<0.40 U	0.53 J	<0.40 U
Ethene	µg/L	--	--	<0.90 U	<0.90 U	<1.2 U	<0.50 U	<0.50 U	<0.50 U
Methane	µg/L	--	--	99.	210.	36.	54.	65.	39.
Sulfate(as SO ₄)	mg/L	250.	125.	9.2	5.6	8.2	9.7	26.	28.
Total Organic Carbon	mg/L	--	--	0.99 JY	0.4 J	<0.4 U	0.53 J	0.89 J	2.
VOCs									
1,1,1-Trichloroethane	µg/L	200.	40.	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
1,1-Dichloroethane	µg/L	850.	85.	0.082	0.087	<0.06 U	<0.060 U	<0.060 U	<0.060 U
1,1-Dichloroethene	µg/L	7.	0.7	<0.024 U	<0.024 U	<0.07 U	<0.070 U	<0.060 U	<0.060 U
1,2,3-Trichlorobenzene	µg/L	--	--	<0.040 U	<0.040 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
1,2,4-Trichlorobenzene	µg/L	70.	14.	<0.029 U	<0.029 U	<0.04 U	<0.040 U	<0.040 U	<0.040 U
1,2,4-Trimethylbenzene	µg/L	480.	96.	<0.024 U	<0.024 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
1,2-Dichlorobenzene	µg/L	600.	60.	<0.025 U	<0.025 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
1,2-Dichloroethane	µg/L	5.	0.5	0.025 J	0.029 J	<0.04 U	<0.040 U	<0.050 U	<0.050 U
1,3,5-Trimethylbenzene	µg/L	480.	96.	<0.022 U	<0.022 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
1,3-Dichlorobenzene	µg/L	600.	120.	0.14	0.056 J	0.075 J	0.091 J	0.05 J	<0.040 U
1,4-Dioxane	µg/L	3.	0.3	NA	NA	NA	NA	<7.0 U	9.9 J
2-Butanone (MEK)	µg/L	4000.	800.	<0.80 U	<0.80 U	<0.8 U	<0.80 U	<0.50 U	<0.50 U
2-Chlorotoluene	µg/L	--	--	<0.025 U	<0.025 U	<0.06 U	<0.060 U	<0.030 U	<0.030 U
4-Chlorotoluene	µg/L	--	--	<0.029 U	<0.029 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
Acetone	µg/L	9000.	1800.	<1.3 UZ	<1.3 UZ	<0.9 U	<0.90 U	<0.30 U	0.97 JB
Benzene	µg/L	5.	0.5	<0.019 U	<0.019 U	<0.06 U	<0.060 U	0.021 J	<0.018 U
Bromobenzene	µg/L	--	--	<0.030 U	<0.030 U	<0.04 U	<0.040 U	<0.040 U	<0.040 U
Chlorobenzene	µg/L	--	--	<0.024 U	<0.024 U	<0.04 U	<0.040 U	<0.040 U	<0.040 U
Chloroethane	µg/L	400.	80.	<0.040 U	<0.040 U	<0.06 U	<0.060 U	<0.070 U	<0.070 U
Chloromethane	µg/L	30.	3.	0.08 JB	<0.040 U	<0.05 U	0.17 J	0.085 J	0.17 B
cis-1,2-Dichloroethene	µg/L	70.	7.	0.056 J	0.12	<0.06 U	<0.060 U	0.078 J	<0.070 U
Ethylbenzene	µg/L	700.	140.	<0.019 U	<0.019 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
Hexachlorobutadiene	µg/L	--	--	<0.070 U	<0.070 U	<0.07 U	<0.070 U	<0.050 U	<0.050 U
Isopropylbenzene	µg/L	--	--	<0.060 U	<0.060 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
m & p-Xylene	µg/L	2000.	400.	<0.050 U	<0.050 U	<0.12 U	<0.12 U	<0.070 U	<0.070 U
Methyl tert-butyl ether	µg/L	60.	12.	<0.040 U	<0.040 U	<0.04 U	<0.040 U	<0.040 U	<0.040 U
Methylene chloride	µg/L	5.	0.5	<0.15 U	<0.15 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
Naphthalene	µg/L	100.	10.	<0.040 U	<0.040 U	<0.05 U	<0.050 U	<0.030 U	<0.030 U
n-Butylbenzene	µg/L	--	--	<0.021 U	<0.021 U	<0.05 U	<0.050 U	<0.030 U	<0.030 U
n-Propylbenzene	µg/L	--	--	<0.022 U	<0.022 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
o-Xylene	µg/L	2000.	400.	<0.027 U	<0.027 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
p-Isopropyltoluene	µg/L	--	--	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
sec-Butylbenzene	µg/L	--	--	<0.024 U	<0.024 U	<0.05 U	<0.050 U	<0.050 U	<0.050 U
Styrene	µg/L	100.	10.	<0.020 U	<0.020 U	<0.05 U	<0.050 U	<0.030 U	<0.030 U
tert-Butylbenzene	µg/L	--	--	<0.025 U	<0.025 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
Tetrachloroethene	µg/L	5.	0.05	0.04 J	<0.030 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
Tetrahydrofuran	µg/L	50.	10.	<0.70 U	<0.70 U	<0.6 U	<0.60 U	<0.40 U	<0.40 U
Toluene	µg/L	800.	160.	<0.027 U	<0.027 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
trans-1,2-Dichloroethene	µg/L	100.	20.	<0.040 U	<0.040 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
Trichloroethene	µg/L	5.	0.5	0.042 J	<0.020 U	<0.03 U	<0.030 U	<0.050 U	<0.050 U
Vinyl acetate	µg/L	--	--	<0.60 U	<0.60 U	<0.5 U	<0.50 U	<0.22 U	<0.22 U
Vinyl chloride	µg/L	0.2	0.02	<0.019 U	<0.019 U	<0.016 U	<0.016 U	<0.019 U	<0.019 U

Table 3. Groundwater Quality Data, Oconomowoc Electroplating Company Inc. (OECI) Superfund Site Monitoring Wells

	Date Sampled			12/15/2014	5/7/2015	11/04/2015	5/10/2016	11/3/2016	5/11/2017
	Units	NR140 ES	NR140 PAL	MW-14DR	MW-14DR	MW-14DR	MW-14DR	MW-14DR	MW-14DR
Field Parameters									
Dissolved Oxygen (DO)	mg/L	--	--	11.86	0.00	0.22	5.74	0.00	0.63
Oxidation Reduction Potential	millivolts	--	--	94	66	-24	213	105	222
pH	pH-units	--	--	7.57	6.69	7.34	6.65	7.16	7.15
Specific Conductivity	umhos/cm	--	--	917	840	887	841	1000	829
Temperature	deg-C	--	--	10.03	11.49	14.02	10.40	7.40	12.53
Turbidity	ntu	--	--	79.5	0.4	0.	0.	0.	0.
Natural Attenuation Parameters									
Alkalinity, total (as CaCO ₃)	mg/L	--	--	310.	290.	340.	350.	360.	340.
Chloride (as Cl)	mg/L	250.	125.	140 M	170.	190.	190.	160.	150.
Iron, total (unfiltered)	mg/L	--	--	0.252 M	0.0672	0.196	<0.020 U	0.0897 J	0.172
Iron, dissolved (filtered)	mg/L	0.3	0.15	<0.010 U	0.0233 J	0.135	<0.010 U	<0.059 U	<0.059 U
Manganese, total (unfiltered)	µg/L	--	--	5.2 M	205.	310.	182.	233.	190.
Manganese, dissolved (filtered)	µg/L	50.	25.	123.	113.	200.	92.8	128.	85.8
Acetylene	µg/L	--	--	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U
Ethane	µg/L	--	--	<0.60 U	<0.60 U	<0.9 U	<0.40 U	<0.40 U	<0.40 U
Ethene	µg/L	--	--	<0.90 U	<0.90 U	<1.2 U	<0.50 U	<0.50 U	<0.50 U
Methane	µg/L	--	--	0.37 J	<0.30 U	0.44 J	<0.40 U	0.44 J	<0.40 U
Sulfate(as SO ₄)	mg/L	250.	125.	40.	36.	41.	38.	25.	24.
Total Organic Carbon	mg/L	--	--	5.	1.7	1.4 J	3.3	2.2	4.4
VOCs									
1,1,1-Trichloroethane	µg/L	200.	40.	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
1,1-Dichloroethane	µg/L	850.	85.	<0.024 U	<0.024 U	<0.06 U	<0.060 U	<0.060 U	<0.060 U
1,1-Dichloroethene	µg/L	7.	0.7	<0.024 U	<0.024 U	<0.07 U	<0.070 U	<0.060 U	<0.060 U
1,2,3-Trichlorobenzene	µg/L	--	--	<0.040 U	<0.040 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
1,2,4-Trichlorobenzene	µg/L	70.	14.	<0.029 U	<0.029 U	<0.04 U	<0.040 U	<0.040 U	<0.040 U
1,2,4-Trimethylbenzene	µg/L	480.	96.	<0.024 U	<0.024 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
1,2-Dichlorobenzene	µg/L	600.	60.	<0.025 U	<0.025 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
1,2-Dichloroethane	µg/L	5.	0.5	<0.024 U	<0.024 U	<0.04 U	<0.040 U	<0.050 U	<0.050 U
1,3,5-Trimethylbenzene	µg/L	480.	96.	<0.022 U	<0.022 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
1,3-Dichlorobenzene	µg/L	600.	120.	<0.021 U	<0.021 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
1,4-Dioxane	µg/L	3.	0.3	NA	NA	NA	NA	<7.0 U	<7.0 U
2-Butanone (MEK)	µg/L	4000.	800.	<0.80 U	<0.80 U	<0.8 U	<0.80 U	<0.50 U	<0.50 U
2-Chlorotoluene	µg/L	--	--	<0.025 U	<0.025 U	<0.06 U	<0.060 U	<0.030 U	<0.030 U
4-Chlorotoluene	µg/L	--	--	<0.029 U	<0.029 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
Acetone	µg/L	9000.	1800.	<1.3 UZ	<1.3 U	<0.9 U	<0.90 U	<0.30 U	0.38 JB
Benzene	µg/L	5.	0.5	<0.019 U	<0.019 U	<0.06 U	<0.060 U	<0.018 U	<0.018 U
Bromobenzene	µg/L	--	--	<0.030 U	<0.030 U	<0.04 U	<0.040 U	<0.040 U	<0.040 U
Chlorobenzene	µg/L	--	--	<0.024 U	<0.024 U	<0.04 U	<0.040 U	<0.040 U	<0.040 U
Chloroethane	µg/L	400.	80.	<0.040 U	<0.040 U	<0.06 U	<0.060 U	<0.070 U	<0.070 U
Chloromethane	µg/L	30.	3.	0.081 JB	<0.040 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
cis-1,2-Dichloroethene	µg/L	70.	7.	0.074 J	0.053 J	<0.06 U	<0.060 U	<0.070 U	<0.070 U
Ethylbenzene	µg/L	700.	140.	<0.019 U	<0.019 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
Hexachlorobutadiene	µg/L	--	--	<0.070 U	<0.070 U	<0.07 U	<0.070 U	<0.050 U	<0.050 U
Isopropylbenzene	µg/L	--	--	<0.060 U	<0.060 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
m & p-Xylene	µg/L	2000.	400.	<0.050 U	<0.050 U	<0.12 U	<0.12 U	<0.070 U	<0.070 U
Methyl tert-butyl ether	µg/L	60.	12.	<0.040 U	<0.040 U	<0.04 U	<0.040 U	<0.040 U	<0.040 U
Methylene chloride	µg/L	5.	0.5	<0.15 U	<0.15 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
Naphthalene	µg/L	100.	10.	<0.040 U	<0.040 U	<0.05 U	<0.050 U	<0.030 U	<0.030 U
n-Butylbenzene	µg/L	--	--	<0.021 U	<0.021 U	<0.05 U	<0.050 U	<0.030 U	<0.030 U
n-Propylbenzene	µg/L	--	--	<0.022 U	<0.022 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
o-Xylene	µg/L	2000.	400.	<0.027 U	<0.027 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
p-Isopropyltoluene	µg/L	--	--	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
sec-Butylbenzene	µg/L	--	--	<0.024 U	<0.024 U	<0.05 U	<0.050 U	<0.050 U	<0.050 U
Styrene	µg/L	100.	10.	<0.020 U	<0.020 U	<0.05 U	<0.050 U	<0.030 U	<0.030 U
tert-Butylbenzene	µg/L	--	--	<0.025 U	<0.025 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
Tetrachloroethene	µg/L	5.	0.05	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
Tetrahydrofuran	µg/L	50.	10.	<0.70 U	<0.70 U	<0.6 U	<0.60 U	<0.40 U	<0.40 U
Toluene	µg/L	800.	160.	<0.027 U	<0.027 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
trans-1,2-Dichloroethene	µg/L	100.	20.	<0.040 U	<0.040 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
Trichloroethene	µg/L	5.	0.5	0.3	0.19	0.2	0.16	0.061 J	0.18
Vinyl acetate	µg/L	--	--	<0.60 U	<0.60 U	<0.5 U	<0.50 U	<0.22 U	<0.22 U
Vinyl chloride	µg/L	0.2	0.02	<0.019 U	<0.019 U	<0.016 U	<0.016 U	<0.019 U	<0.019 U

Table 3. Groundwater Quality Data, Oconomowoc Electroplating Company Inc. (OECI) Superfund Site Monitoring Wells

Notes:

mg/L: milligrams per liter

umhos/cm: micromhos per centimeter

deg-C: degrees Celsius

ntu: nephelometric turbidity units

µg/L: micrograms per liter

NA: Not Analyzed

NR140 ES: Chapter NR140 Wisconsin Administrative Enforcement Standard

NR140 PAL: Chapter NR140 Wisconsin Administrative Code Preventive Action Limit

Dup: Duplicate sample

Laboratory Quality Control Qualifiers

B: Analyte detected in the associated Method Blank.

D: Diluted Out.

H: Holding time exceeded.

J: Estimated value.

M: Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.

Q: Laboratory Control Sample outside acceptance limits.

U: Analyte concentration was below detection limit.

Y: Replicate/Duplicate precision outside acceptance limits.

Z: Specified calibration criteria was not met.

Table 4. Residential Wells Groundwater Sample Results

	Date Sampled			12/9/2014	11/4/2015	11/2/2016	11/3/2015
	Units	NR140 ES	NR140 PAL	PW-03	PW-03	PW-03	PW-04
VOCs							
1,1,1,2-Tetrachloroethane	µg/L	70.	7.	<0.030 U	<0.05 U	<0.040 U	<0.05 U
1,1,1-Trichloroethane	µg/L	200.	40.	<0.030 U	<0.06 U	<0.050 U	<0.06 U
1,1-Dichloroethane	µg/L	850.	85.	<0.024 U	<0.06 U	<0.060 U	<0.06 U
1,1-Dichloroethene	µg/L	7.	0.7	<0.024 U	<0.07 U	<0.060 U	<0.07 U
1,2,3-Trichlorobenzene	µg/L	--	--	<0.040 U	<0.05 U	<0.040 U	<0.05 U
1,2,3-Trichloropropane	µg/L	60.	12.	<0.080 U	<0.04 U	<0.040 U	<0.04 U
1,2,4-Trichlorobenzene	µg/L	70.	14.	<0.029 U	<0.04 U	<0.040 U	<0.04 U
1,2,4-Trimethylbenzene	µg/L	480.	96.	<0.024 U	<0.05 U	<0.040 U	<0.05 U
1,2-Dichlorobenzene	µg/L	600.	60.	<0.025 U	<0.06 U	<0.040 U	<0.06 U
1,2-Dichloroethane	µg/L	5.	0.5	0.031 J	<0.04 U	<0.050 U	<0.04 U
1,3,5-Trimethylbenzene	µg/L	480.	96.	<0.022 U	<0.06 U	<0.050 U	<0.06 U
1,3-Dichlorobenzene	µg/L	600.	120.	<0.021 U	<0.06 U	<0.040 U	<0.06 U
1,3-Dichloropropane	µg/L	--	--	<0.040 U	<0.04 U	<0.040 U	<0.04 U
1,4-Dichlorobenzene	µg/L	75.	15.	<0.026 U	<0.05 U	<0.040 U	<0.05 U
1,4-Dioxane	µg/L	3.	0.3	NA	NA	<7.0 U	NA
2,2-Dichloropropane	µg/L	--	--	<0.022 U	<0.04 U	<0.050 U	<0.04 U
2-Butanone (MEK)	µg/L	4000.	800.	<0.80 U	<0.8 U	<0.50 U	<0.8 U
2-Chlorotoluene	µg/L	--	--	<0.025 U	<0.06 U	<0.030 U	<0.06 U
4-Chlorotoluene	µg/L	--	--	<0.029 U	<0.05 U	<0.040 U	<0.05 U
Acetone	µg/L	9000.	1800.	<1.3 UZ	<0.9 U	<0.30 U	<0.9 U
Benzene	µg/L	5.	0.5	<0.019 U	<0.06 U	<0.018 U	<0.06 U
Bromobenzene	µg/L	--	--	<0.030 U	<0.04 U	<0.040 U	<0.04 U
Chlorobenzene	µg/L	--	--	<0.024 U	<0.04 U	<0.040 U	<0.04 U
Chloroethane	µg/L	400.	80.	<0.040 U	<0.06 U	<0.070 U	<0.06 U
Chloromethane	µg/L	30.	3.	0.054 JB	<0.05 U	0.042 J	<0.05 U
cis-1,2-Dichloroethene	µg/L	70.	7.	1.3	1.8	1.4	1.2
Diisopropyl ether	µg/L	--	--	<0.021 U	<0.04 U	<0.040 U	<0.04 U
Ethylbenzene	µg/L	700.	140.	<0.019 U	<0.06 U	<0.040 U	<0.06 U
Hexachlorobutadiene	µg/L	--	--	<0.070 U	<0.07 U	<0.050 U	<0.07 U
Isopropylbenzene	µg/L	--	--	<0.060 U	<0.05 U	<0.040 U	<0.05 U
m & p-Xylene	µg/L	2000.	400.	<0.050 U	<0.12 U	<0.070 U	<0.12 U
Methyl tert-butyl ether	µg/L	60.	12.	0.57	0.6	0.6	0.48
Methylene chloride	µg/L	5.	0.5	<0.15 U	<0.06 U	<0.050 U	<0.06 U
Naphthalene	µg/L	100.	10.	<0.040 U	<0.05 U	<0.030 U	<0.05 U
n-Butylbenzene	µg/L	--	--	<0.021 U	<0.05 U	<0.030 U	<0.05 U
n-Propylbenzene	µg/L	--	--	<0.022 U	<0.05 U	<0.040 U	<0.05 U
o-Xylene	µg/L	2000.	400.	<0.027 U	<0.05 U	<0.040 U	<0.05 U
p-Isopropyltoluene	µg/L	--	--	<0.030 U	<0.06 U	<0.040 U	<0.06 U
sec-Butylbenzene	µg/L	--	--	<0.024 U	<0.05 U	<0.050 U	<0.05 U
Styrene	µg/L	100.	10.	<0.020 U	<0.05 U	0.11 J	<0.05 U
tert-Butylbenzene	µg/L	--	--	<0.025 U	<0.06 U	<0.040 U	<0.06 U
Tetrachloroethene	µg/L	5.	0.05	<0.030 U	<0.06 U	<0.050 U	<0.06 U
Tetrahydrofuran	µg/L	50.	10.	<0.70 U	<0.6 U	<0.40 U	<0.6 U
Toluene	µg/L	800.	160.	<0.027 U	<0.06 U	<0.040 U	<0.06 U
trans-1,2-Dichloroethene	µg/L	100.	20.	0.074 J	0.088 J	0.066 J	0.066 J
Trichloroethene	µg/L	5.	0.5	0.62	0.69	0.62	0.086 J
Vinyl chloride	µg/L	0.2	0.02	<0.019 U	<0.016 U	<0.019 U	<0.016 U

Table 4. Residential Wells Groundwater Sample Results

	Date Sampled			11/1/2016	12/9/2014	11/5/2015	10/31/2016
	Units	NR140 ES	NR140 PAL	PW-04	PW-07	PW-07	PW-07
VOCs							
1,1,1,2-Tetrachloroethane	µg/L	70.	7.	<0.040 U	<0.030 U	<0.05 U	<0.040 U
1,1,1-Trichloroethane	µg/L	200.	40.	<0.050 U	<0.030 U	<0.06 U	<0.050 U
1,1-Dichloroethane	µg/L	850.	85.	<0.060 U	<0.024 U	<0.06 U	<0.060 U
1,1-Dichloroethene	µg/L	7.	0.7	<0.060 U	<0.024 U	<0.07 U	<0.060 U
1,2,3-Trichlorobenzene	µg/L	--	--	<0.040 U	<0.040 U	<0.05 U	<0.040 U
1,2,3-Trichloropropane	µg/L	60.	12.	<0.040 U	<0.080 U	<0.04 U	<0.040 U
1,2,4-Trichlorobenzene	µg/L	70.	14.	<0.040 U	<0.029 U	<0.04 U	<0.040 U
1,2,4-Trimethylbenzene	µg/L	480.	96.	<0.040 U	<0.024 U	<0.05 U	<0.040 U
1,2-Dichlorobenzene	µg/L	600.	60.	<0.040 U	<0.025 U	<0.06 U	<0.040 U
1,2-Dichloroethane	µg/L	5.	0.5	<0.050 U	<0.024 U	<0.04 U	<0.050 U
1,3,5-Trimethylbenzene	µg/L	480.	96.	<0.050 U	<0.022 U	<0.06 U	<0.050 U
1,3-Dichlorobenzene	µg/L	600.	120.	<0.040 U	<0.021 U	<0.06 U	<0.040 U
1,3-Dichloropropane	µg/L	--	--	<0.040 U	<0.040 U	<0.04 U	<0.040 U
1,4-Dichlorobenzene	µg/L	75.	15.	<0.040 U	<0.026 U	<0.05 U	<0.040 U
1,4-Dioxane	µg/L	3.	0.3	<7.0 U	NA	NA	<7.0 U
2,2-Dichloropropane	µg/L	--	--	<0.050 U	<0.022 U	<0.04 U	<0.050 U
2-Butanone (MEK)	µg/L	4000.	800.	<0.50 U	<0.80 U	<0.8 U	<0.50 U
2-Chlorotoluene	µg/L	--	--	<0.030 U	<0.025 U	<0.06 U	<0.030 U
4-Chlorotoluene	µg/L	--	--	<0.040 U	<0.029 U	<0.05 U	<0.040 U
Acetone	µg/L	9000.	1800.	<0.30 U	<1.3 UZ	<0.9 U	<0.30 U
Benzene	µg/L	5.	0.5	<0.018 U	<0.019 U	<0.06 U	<0.018 U
Bromobenzene	µg/L	--	--	<0.040 U	<0.030 U	<0.04 U	<0.040 U
Chlorobenzene	µg/L	--	--	<0.040 U	<0.024 U	<0.04 U	<0.040 U
Chloroethane	µg/L	400.	80.	<0.070 U	<0.040 U	<0.06 U	<0.070 U
Chloromethane	µg/L	30.	3.	<0.040 U	0.056 JB	<0.05 U	<0.040 U
cis-1,2-Dichloroethene	µg/L	70.	7.	1.4	0.34	3.	4.3
Diisopropyl ether	µg/L	--	--	0.044 J	<0.021 U	<0.04 U	<0.040 U
Ethylbenzene	µg/L	700.	140.	<0.040 U	<0.019 U	<0.06 U	<0.040 U
Hexachlorobutadiene	µg/L	--	--	<0.050 U	<0.070 U	<0.07 U	<0.050 U
Isopropylbenzene	µg/L	--	--	<0.040 U	<0.060 U	<0.05 U	<0.040 U
m & p-Xylene	µg/L	2000.	400.	<0.070 U	<0.050 U	<0.12 U	<0.070 U
Methyl tert-butyl ether	µg/L	60.	12.	0.55	0.33	0.5	0.63
Methylene chloride	µg/L	5.	0.5	<0.050 U	<0.15 U	<0.06 U	<0.050 U
Naphthalene	µg/L	100.	10.	<0.030 U	<0.040 U	<0.05 U	<0.030 U
n-Butylbenzene	µg/L	--	--	<0.030 U	<0.021 U	<0.05 U	<0.030 U
n-Propylbenzene	µg/L	--	--	<0.040 U	<0.022 U	<0.05 U	<0.040 U
o-Xylene	µg/L	2000.	400.	<0.040 U	<0.027 U	<0.05 U	<0.040 U
p-Isopropyltoluene	µg/L	--	--	<0.040 U	<0.030 U	<0.06 U	<0.040 U
sec-Butylbenzene	µg/L	--	--	<0.050 U	<0.024 U	<0.05 U	<0.050 U
Styrene	µg/L	100.	10.	<0.030 U	<0.020 U	<0.05 U	<0.030 U
tert-Butylbenzene	µg/L	--	--	<0.040 U	<0.025 U	<0.06 U	<0.040 U
Tetrachloroethene	µg/L	5.	0.05	<0.050 U	<0.030 U	<0.06 U	<0.050 U
Tetrahydrofuran	µg/L	50.	10.	<0.40 U	<0.70 U	<0.6 U	0.44 J
Toluene	µg/L	800.	160.	<0.040 U	<0.027 U	<0.06 U	<0.040 U
trans-1,2-Dichloroethene	µg/L	100.	20.	0.077 J	<0.040 U	0.13 J	0.17
Trichloroethene	µg/L	5.	0.5	0.089 J	<0.020 U	0.031 J	<0.050 U
Vinyl chloride	µg/L	0.2	0.02	<0.019 U	0.05 J	0.053	0.041 J

Table 4. Residential Wells Groundwater Sample Results

	Date Sampled			12/9/2014	11/5/2015	10/31/2016	12/9/2014
	Units	NR140 ES	NR140 PAL	PW-08	PW-08	PW-08	PW-09
VOCs							
1,1,1,2-Tetrachloroethane	µg/L	70.	7.	<0.030 U	<0.05 U	<0.040 U	<0.030 U
1,1,1-Trichloroethane	µg/L	200.	40.	<0.030 U	<0.06 U	<0.050 U	<0.030 U
1,1-Dichloroethane	µg/L	850.	85.	<0.024 U	<0.06 U	<0.060 U	<0.024 U
1,1-Dichloroethene	µg/L	7.	0.7	<0.024 U	<0.07 U	<0.060 U	<0.024 U
1,2,3-Trichlorobenzene	µg/L	--	--	<0.040 U	<0.05 U	<0.040 U	<0.040 U
1,2,3-Trichloropropane	µg/L	60.	12.	<0.080 U	<0.04 U	<0.040 U	<0.080 U
1,2,4-Trichlorobenzene	µg/L	70.	14.	<0.029 U	<0.04 U	<0.040 U	<0.029 U
1,2,4-Trimethylbenzene	µg/L	480.	96.	<0.024 U	<0.05 U	<0.040 U	<0.024 U
1,2-Dichlorobenzene	µg/L	600.	60.	<0.025 U	<0.06 U	<0.040 U	<0.025 U
1,2-Dichloroethane	µg/L	5.	0.5	<0.024 U	<0.04 U	<0.050 U	0.041 J
1,3,5-Trimethylbenzene	µg/L	480.	96.	<0.022 U	<0.06 U	<0.050 U	<0.022 U
1,3-Dichlorobenzene	µg/L	600.	120.	<0.021 U	<0.06 U	<0.040 U	<0.021 U
1,3-Dichloropropane	µg/L	--	--	<0.040 U	<0.04 U	<0.040 U	<0.040 U
1,4-Dichlorobenzene	µg/L	75.	15.	<0.026 U	<0.05 U	<0.040 U	<0.026 U
1,4-Dioxane	µg/L	3.	0.3	NA	NA	<7.0 UM	NA
2,2-Dichloropropane	µg/L	--	--	<0.022 U	<0.04 U	<0.050 U	<0.022 U
2-Butanone (MEK)	µg/L	4000.	800.	<0.80 U	<0.8 U	<0.50 U	<0.80 U
2-Chlorotoluene	µg/L	--	--	<0.025 U	<0.06 U	<0.030 U	<0.025 U
4-Chlorotoluene	µg/L	--	--	<0.029 U	<0.05 U	<0.040 U	<0.029 U
Acetone	µg/L	9000.	1800.	<1.3 UZ	<0.9 U	<0.30 U	<1.3 UZ
Benzene	µg/L	5.	0.5	<0.019 U	<0.06 U	<0.018 U	<0.019 U
Bromobenzene	µg/L	--	--	<0.030 U	<0.04 U	<0.040 U	<0.030 U
Chlorobenzene	µg/L	--	--	<0.024 U	<0.04 U	<0.040 U	<0.024 U
Chloroethane	µg/L	400.	80.	<0.040 U	<0.06 U	<0.070 U	<0.040 U
Chloromethane	µg/L	30.	3.	0.06 JB	<0.05 U	<0.040 U	0.055 JB
cis-1,2-Dichloroethene	µg/L	70.	7.	2.2	2.3	2.3	5.6
Diisopropyl ether	µg/L	--	--	<0.021 U	<0.04 U	<0.040 U	<0.021 U
Ethylbenzene	µg/L	700.	140.	<0.019 U	<0.06 U	<0.040 U	<0.019 U
Hexachlorobutadiene	µg/L	--	--	<0.070 U	<0.07 U	<0.050 U	<0.070 U
Isopropylbenzene	µg/L	--	--	<0.060 U	<0.05 U	<0.040 U	<0.060 U
m & p-Xylene	µg/L	2000.	400.	<0.050 U	<0.12 U	<0.070 U	<0.050 U
Methyl tert-butyl ether	µg/L	60.	12.	0.57	0.57	0.67	0.63
Methylene chloride	µg/L	5.	0.5	<0.15 U	<0.06 U	<0.050 U	<0.15 U
Naphthalene	µg/L	100.	10.	<0.040 U	<0.05 U	<0.030 U	<0.040 U
n-Butylbenzene	µg/L	--	--	<0.021 U	<0.05 U	<0.030 U	<0.021 U
n-Propylbenzene	µg/L	--	--	<0.022 U	<0.05 U	<0.040 U	<0.022 U
o-Xylene	µg/L	2000.	400.	<0.027 U	<0.05 U	<0.040 U	<0.027 U
p-Isopropyltoluene	µg/L	--	--	<0.030 U	<0.06 U	<0.040 U	<0.030 U
sec-Butylbenzene	µg/L	--	--	<0.024 U	<0.05 U	<0.050 U	<0.024 U
Styrene	µg/L	100.	10.	<0.020 U	<0.05 U	<0.030 U	<0.020 U
tert-Butylbenzene	µg/L	--	--	<0.025 U	<0.06 U	<0.040 U	<0.025 U
Tetrachloroethene	µg/L	5.	0.05	<0.030 U	<0.06 U	<0.050 U	<0.030 U
Tetrahydrofuran	µg/L	50.	10.	<0.70 U	<0.6 U	<0.40 U	<0.70 U
Toluene	µg/L	800.	160.	<0.027 U	<0.06 U	<0.040 U	0.088 J
trans-1,2-Dichloroethene	µg/L	100.	20.	0.094 J	0.1 J	0.12 J	0.23
Trichloroethene	µg/L	5.	0.5	0.083	0.069 J	0.11 J	0.06 J
Vinyl chloride	µg/L	0.2	0.02	0.045 J	0.043 J	<0.019 U	0.056 J

Table 4. Residential Wells Groundwater Sample Results

	Date Sampled			11/3/2015	11/2/2016	12/9/2014	11/5/2015
	Units	NR140 ES	NR140 PAL	PW-09	PW-09	PW-10	PW-10
VOCs							
1,1,1,2-Tetrachloroethane	µg/L	70.	7.	<0.05 U	<0.040 U	<0.030 U	<0.05 U
1,1,1-Trichloroethane	µg/L	200.	40.	<0.06 U	<0.050 U	<0.030 U	<0.06 U
1,1-Dichloroethane	µg/L	850.	85.	<0.06 U	<0.060 U	<0.024 U	<0.06 U
1,1-Dichloroethene	µg/L	7.	0.7	<0.07 U	<0.060 U	<0.024 U	<0.07 U
1,2,3-Trichlorobenzene	µg/L	--	--	<0.05 U	<0.040 U	<0.040 U	<0.05 U
1,2,3-Trichloropropane	µg/L	60.	12.	<0.04 U	<0.040 U	<0.080 U	<0.04 U
1,2,4-Trichlorobenzene	µg/L	70.	14.	<0.04 U	<0.040 U	<0.029 U	<0.04 U
1,2,4-Trimethylbenzene	µg/L	480.	96.	<0.05 U	<0.040 U	<0.024 U	<0.05 U
1,2-Dichlorobenzene	µg/L	600.	60.	<0.06 U	<0.040 U	<0.025 U	<0.06 U
1,2-Dichloroethane	µg/L	5.	0.5	0.048 J	<0.050 U	<0.024 U	<0.04 U
1,3,5-Trimethylbenzene	µg/L	480.	96.	<0.06 U	<0.050 U	<0.022 U	<0.06 U
1,3-Dichlorobenzene	µg/L	600.	120.	<0.06 U	<0.040 U	<0.021 U	<0.06 U
1,3-Dichloropropane	µg/L	--	--	<0.04 U	<0.040 U	<0.040 U	<0.04 U
1,4-Dichlorobenzene	µg/L	75.	15.	<0.05 U	<0.040 U	<0.026 U	<0.05 U
1,4-Dioxane	µg/L	3.	0.3	NA	<7.0 U	NA	NA
2,2-Dichloropropane	µg/L	--	--	<0.04 U	<0.050 U	<0.022 U	<0.04 U
2-Butanone (MEK)	µg/L	4000.	800.	<0.8 U	<0.50 U	<0.80 U	<0.8 U
2-Chlorotoluene	µg/L	--	--	<0.06 U	<0.030 U	<0.025 U	<0.06 U
4-Chlorotoluene	µg/L	--	--	<0.05 U	<0.040 U	<0.029 U	<0.05 U
Acetone	µg/L	9000.	1800.	<0.9 U	<0.30 U	<1.3 UZ	<0.9 U
Benzene	µg/L	5.	0.5	<0.06 U	0.025 J	<0.019 U	<0.06 U
Bromobenzene	µg/L	--	--	<0.04 U	<0.040 U	<0.030 U	<0.04 U
Chlorobenzene	µg/L	--	--	<0.04 U	<0.040 U	<0.024 U	<0.04 U
Chloroethane	µg/L	400.	80.	<0.06 U	<0.070 U	<0.040 U	<0.06 U
Chloromethane	µg/L	30.	3.	<0.05 U	<0.040 U	0.046 JB	<0.05 U
cis-1,2-Dichloroethene	µg/L	70.	7.	6.	5.3	0.097 J	0.11 J
Diisopropyl ether	µg/L	--	--	<0.04 U	<0.040 U	<0.021 U	<0.04 U
Ethylbenzene	µg/L	700.	140.	<0.06 U	<0.040 U	<0.019 U	<0.06 U
Hexachlorobutadiene	µg/L	--	--	<0.07 U	<0.050 U	<0.070 U	<0.07 U
Isopropylbenzene	µg/L	--	--	<0.05 U	<0.040 U	<0.060 U	<0.05 U
m & p-Xylene	µg/L	2000.	400.	<0.12 U	<0.070 U	<0.050 U	<0.12 U
Methyl tert-butyl ether	µg/L	60.	12.	0.62	0.65	0.39	0.43
Methylene chloride	µg/L	5.	0.5	<0.06 U	<0.050 U	<0.15 U	<0.06 U
Naphthalene	µg/L	100.	10.	<0.05 U	<0.030 U	<0.040 U	<0.05 U
n-Butylbenzene	µg/L	--	--	<0.05 U	<0.030 U	<0.021 U	<0.05 U
n-Propylbenzene	µg/L	--	--	<0.05 U	<0.040 U	<0.022 U	<0.05 U
o-Xylene	µg/L	2000.	400.	<0.05 U	<0.040 U	<0.027 U	<0.05 U
p-Isopropyltoluene	µg/L	--	--	<0.06 U	<0.040 U	<0.030 U	<0.06 U
sec-Butylbenzene	µg/L	--	--	<0.05 U	<0.050 U	<0.024 U	<0.05 U
Styrene	µg/L	100.	10.	<0.05 U	<0.030 U	<0.020 U	<0.05 U
tert-Butylbenzene	µg/L	--	--	<0.06 U	<0.040 U	<0.025 U	<0.06 U
Tetrachloroethene	µg/L	5.	0.05	<0.06 U	<0.050 U	<0.030 U	<0.06 U
Tetrahydrofuran	µg/L	50.	10.	<0.6 U	<0.40 U	<0.70 U	<0.6 U
Toluene	µg/L	800.	160.	0.083 J	0.13 J	<0.027 U	<0.06 U
trans-1,2-Dichloroethene	µg/L	100.	20.	0.26	0.22	<0.040 U	<0.06 U
Trichloroethene	µg/L	5.	0.5	0.068 J	0.066 J	<0.020 U	<0.03 U
Vinyl chloride	µg/L	0.2	0.02	0.055	<0.019 U	<0.019 U	0.021 J

Table 4. Residential Wells Groundwater Sample Results

	Date Sampled			10/31/2016	12/9/2014	11/6/2015	11/2/2016
	Units	NR140 ES	NR140 PAL	PW-10	PW-11	PW-11	PW-11
VOCs							
1,1,1,2-Tetrachloroethane	µg/L	70.	7.	<0.040 U	<0.030 U	<0.05 U	<0.040 U
1,1,1-Trichloroethane	µg/L	200.	40.	<0.050 U	<0.030 U	<0.06 U	<0.050 U
1,1-Dichloroethane	µg/L	850.	85.	<0.060 U	<0.024 U	<0.06 U	<0.060 U
1,1-Dichloroethene	µg/L	7.	0.7	<0.060 U	<0.024 U	<0.07 U	<0.060 U
1,2,3-Trichlorobenzene	µg/L	--	--	<0.040 U	<0.040 U	<0.05 U	<0.040 U
1,2,3-Trichloropropane	µg/L	60.	12.	<0.040 U	<0.080 U	<0.04 U	<0.040 U
1,2,4-Trichlorobenzene	µg/L	70.	14.	<0.040 U	<0.029 U	<0.04 U	<0.040 U
1,2,4-Trimethylbenzene	µg/L	480.	96.	<0.040 U	<0.024 U	<0.05 U	<0.040 U
1,2-Dichlorobenzene	µg/L	600.	60.	<0.040 U	<0.025 U	<0.06 U	<0.040 U
1,2-Dichloroethane	µg/L	5.	0.5	<0.050 U	0.044 J	0.065 J	<0.050 U
1,3,5-Trimethylbenzene	µg/L	480.	96.	<0.050 U	<0.022 U	<0.06 U	<0.050 U
1,3-Dichlorobenzene	µg/L	600.	120.	<0.040 U	<0.021 U	<0.06 U	<0.040 U
1,3-Dichloropropane	µg/L	--	--	<0.040 U	<0.040 U	<0.04 U	<0.040 U
1,4-Dichlorobenzene	µg/L	75.	15.	<0.040 U	<0.026 U	<0.05 U	<0.040 U
1,4-Dioxane	µg/L	3.	0.3	<7.0 U	NA	NA	<7.0 U
2,2-Dichloropropane	µg/L	--	--	<0.050 U	<0.022 U	<0.04 U	<0.050 U
2-Butanone (MEK)	µg/L	4000.	800.	<0.50 U	<0.80 U	<0.8 U	<0.50 U
2-Chlorotoluene	µg/L	--	--	<0.030 U	<0.025 U	<0.06 U	<0.030 U
4-Chlorotoluene	µg/L	--	--	<0.040 U	<0.029 U	<0.05 U	<0.040 U
Acetone	µg/L	9000.	1800.	<0.30 U	<1.3 UZ	<0.9 U	<0.30 U
Benzene	µg/L	5.	0.5	<0.018 U	<0.019 U	<0.06 U	<0.018 U
Bromobenzene	µg/L	--	--	<0.040 U	<0.030 U	<0.04 U	<0.040 U
Chlorobenzene	µg/L	--	--	<0.040 U	<0.024 U	<0.04 U	<0.040 U
Chloroethane	µg/L	400.	80.	<0.070 U	<0.040 U	<0.06 U	<0.070 U
Chloromethane	µg/L	30.	3.	<0.040 U	0.08 JB	<0.05 U	<0.040 U
cis-1,2-Dichloroethene	µg/L	70.	7.	0.11 J	1.7	1.9	1.2
Diisopropyl ether	µg/L	--	--	<0.040 U	0.13	0.13 J	0.14
Ethylbenzene	µg/L	700.	140.	<0.040 U	<0.019 U	<0.06 U	<0.040 U
Hexachlorobutadiene	µg/L	--	--	<0.050 U	<0.070 U	<0.07 U	<0.050 U
Isopropylbenzene	µg/L	--	--	<0.040 U	<0.060 U	<0.05 U	<0.040 U
m & p-Xylene	µg/L	2000.	400.	<0.070 U	<0.050 U	<0.12 U	<0.070 U
Methyl tert-butyl ether	µg/L	60.	12.	0.48	1.	1.	0.89
Methylene chloride	µg/L	5.	0.5	<0.050 U	<0.15 U	<0.06 U	<0.050 U
Naphthalene	µg/L	100.	10.	<0.030 U	<0.040 U	<0.05 U	<0.030 U
n-Butylbenzene	µg/L	--	--	<0.030 U	<0.021 U	<0.05 U	<0.030 U
n-Propylbenzene	µg/L	--	--	<0.040 U	<0.022 U	<0.05 U	<0.040 U
o-Xylene	µg/L	2000.	400.	<0.040 U	<0.027 U	<0.05 U	<0.040 U
p-Isopropyltoluene	µg/L	--	--	<0.040 U	<0.030 U	<0.06 U	<0.040 U
sec-Butylbenzene	µg/L	--	--	<0.050 U	<0.024 U	<0.05 U	<0.050 U
Styrene	µg/L	100.	10.	<0.030 U	<0.020 U	<0.05 U	<0.030 U
tert-Butylbenzene	µg/L	--	--	<0.040 U	<0.025 U	<0.06 U	<0.040 U
Tetrachloroethene	µg/L	5.	0.05	<0.050 U	<0.030 U	<0.06 U	<0.050 U
Tetrahydrofuran	µg/L	50.	10.	<0.40 U	<0.70 U	<0.6 U	<0.40 U
Toluene	µg/L	800.	160.	<0.040 U	<0.027 U	<0.06 U	<0.040 U
trans-1,2-Dichloroethene	µg/L	100.	20.	<0.040 U	0.12 J	0.13 J	0.092 J
Trichloroethene	µg/L	5.	0.5	<0.050 U	<0.020 U	<0.03 U	<0.050 U
Vinyl chloride	µg/L	0.2	0.02	<0.019 U	0.039 J	0.04 J	<0.019 U

Table 4. Residential Wells Groundwater Sample Results

Notes:

mg/L: milligrams per liter

umhos/cm: micromhos per centimeter

deg-C: degrees Celsius

ntu: nephelometric turbidity units

µg/L: micrograms per liter

NA: Not Analyzed

NR140 ES: Chapter NR140 Wisconsin Administrative Enforcement Standard

NR140 PAL: Chapter NR140 Wisconsin Administrative Code Preventive Action Limit

Laboratory Quality Control Qualifiers

B: Analyte detected in the associated Method Blank.

J: Estimated value.

M: Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.

U: Analyte concentration was below detection limit.

Y: Replicate/Duplicate precision outside acceptance limits.

Z: Specified calibration criteria was not met.

Table 5. Natural Biodegradation Potential Scores For May 2015 and May 2016 Sampling Event OECl Superfund Site Monitoring Wells Groundwater Samples

Well ID	Well Type	Biodegradation Potential Scores		
		May 2015 Sampling Event	May 2016 Sampling Event	May 2017 Sampling Event
MW-1S	WT	4.	8.	- 2.
MW-1D	BR	14.	11.	14.
MW-2D	BR	0.	8.	- 1.
MW-3D	BR	8.	9.	- 1.
MW-4S	WT	3.	6.	3.
MW-5D	MID	10.	10.	11.
MW-9S	WT	4.	6.	4.
MW-12S	WT	8.	8.	1.
MW-12D	MID	12.	12.	10.
MW-12B	BR	-3.	0.	1.
MW-13S	WT	-1.	3.	-1.
MW-13D	MID	10.	10.	5.
MW-15S	WT	-1.	4.	-1.
MW-15D	MID	6.	5.	5.
MW-15B	BR	10.	12.	5.
MW-16S	WT	7.	12.	12.
MW-101S	WT	-3.	2.	-3.
MW-101B	BR	7.	7.	5.
MW-102S	WT	-3.	-3.	-3.
MW-102D	MID	8.	13.	4.
MW-103S	WT	7.	5.	1.
MW-103D	MID	7.	9.	4.
MW-105S	WT	13.	13.	10.
MW-105D	MID	13.	13.	10.
MW-105B	BR	4.	8.	2.
TW-202I	MID	2.	- 1.	5.
OW-6	BR	10.	1.	5.
MW-14DR	MID	5.	- 3.	0.

Total Points	Interpretation
0-5	Inadequate evidence for biodegradation.
6-14	Limited evidence for biodegradation.
15-20	Adequate evidence for biodegradation.
>20	Strong evidence for biodegradation of chlorinated solvents.

Notes:

WT = Water table (shallow) monitoring well

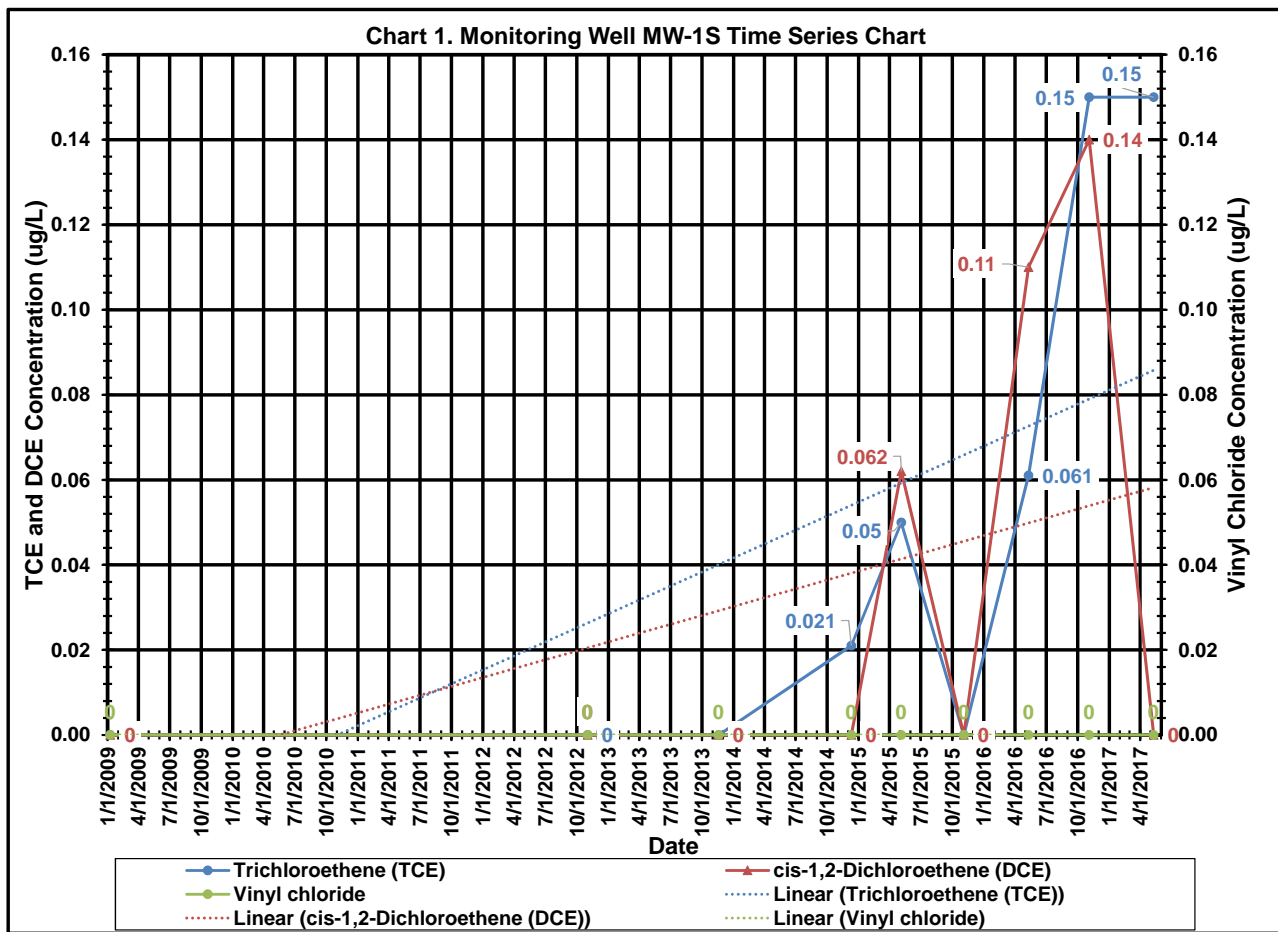
MID = Mid-depth unconsolidated deposits monitoring well

BR = Bedrock monitoring well

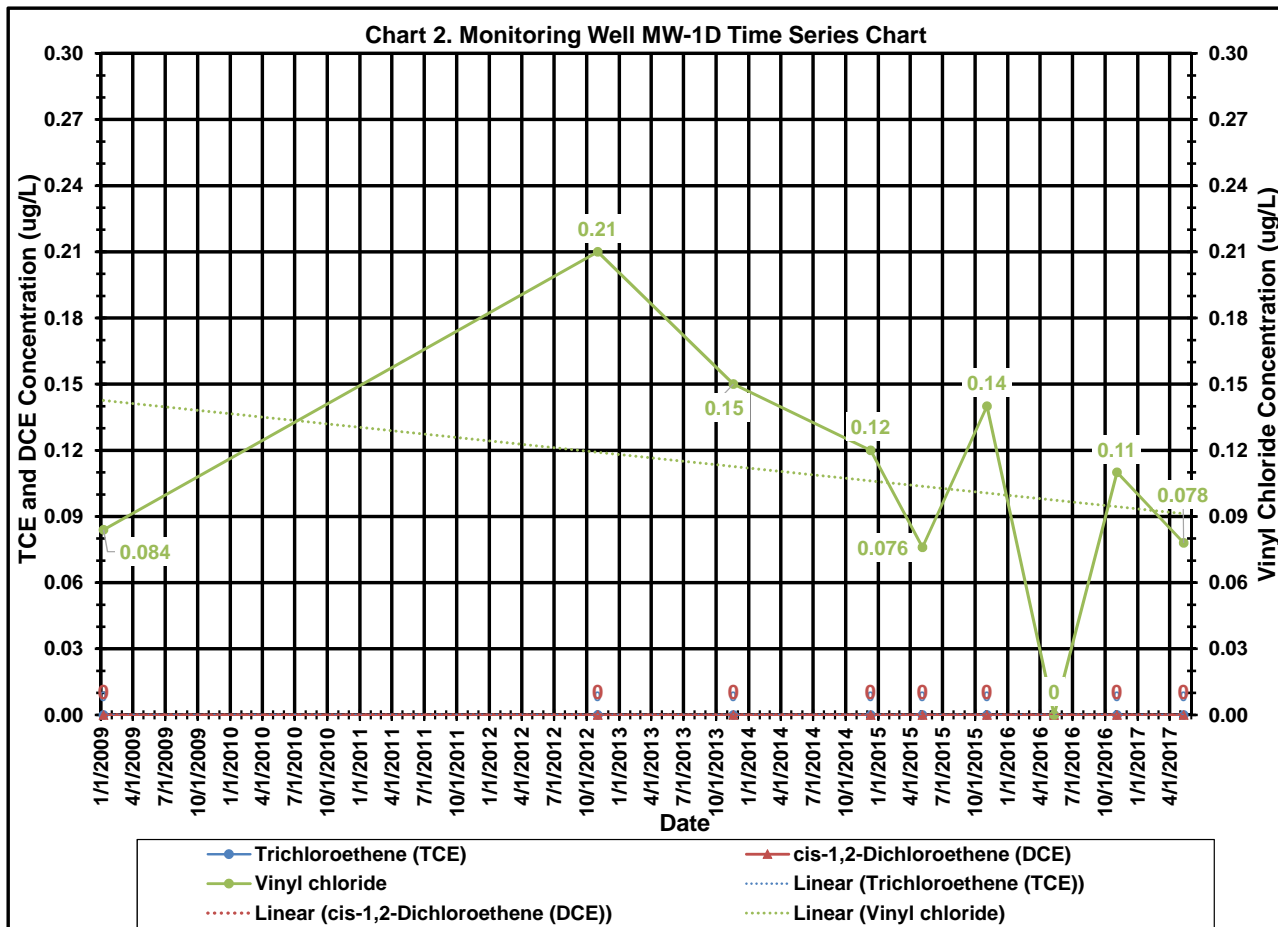
Alkalinity and chloride concentrations from monitoring well MW-102S used as background values.

Scoring system and interpretation from: Chlorinated Solvents in Groundwater, June 2006, Minnesota Pollution Control Agency Site Remediation Section.

CHARTS

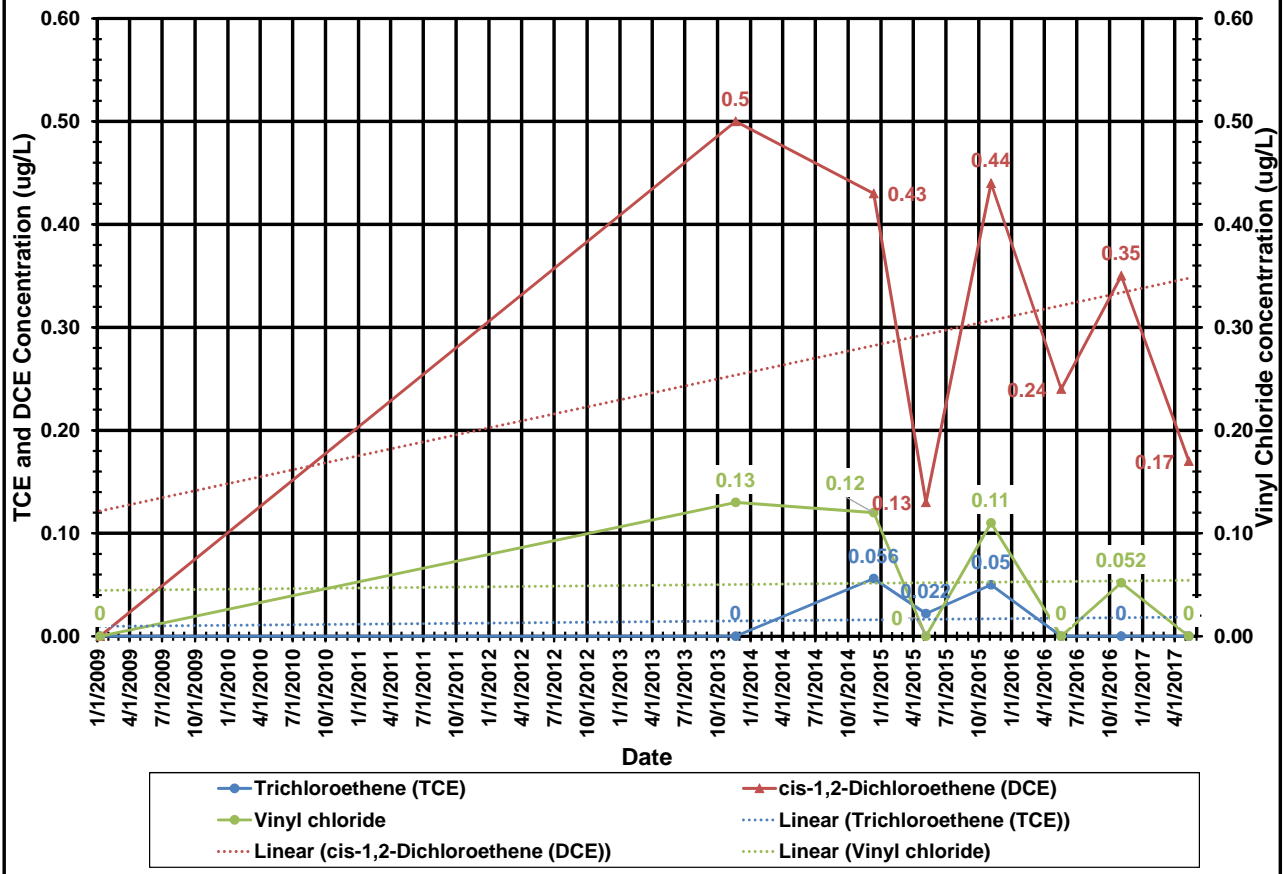


Note: In-situ soil treatment in source Area A with Daramend performed in June 2013.



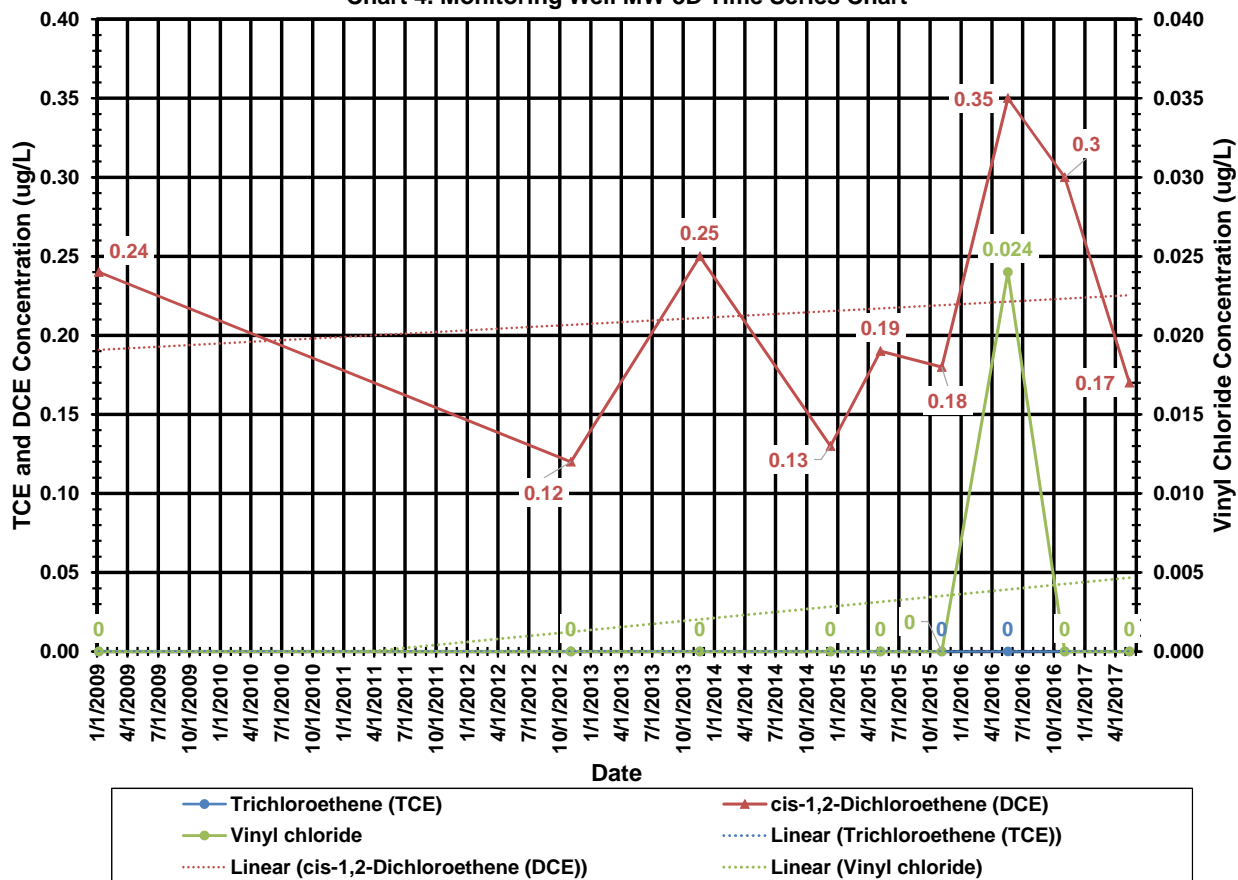
Note: In-situ soil treatment in source Area A with Daramend performed in June 2013.

Chart 3. Monitoring Well MW-2D Time Series Chart



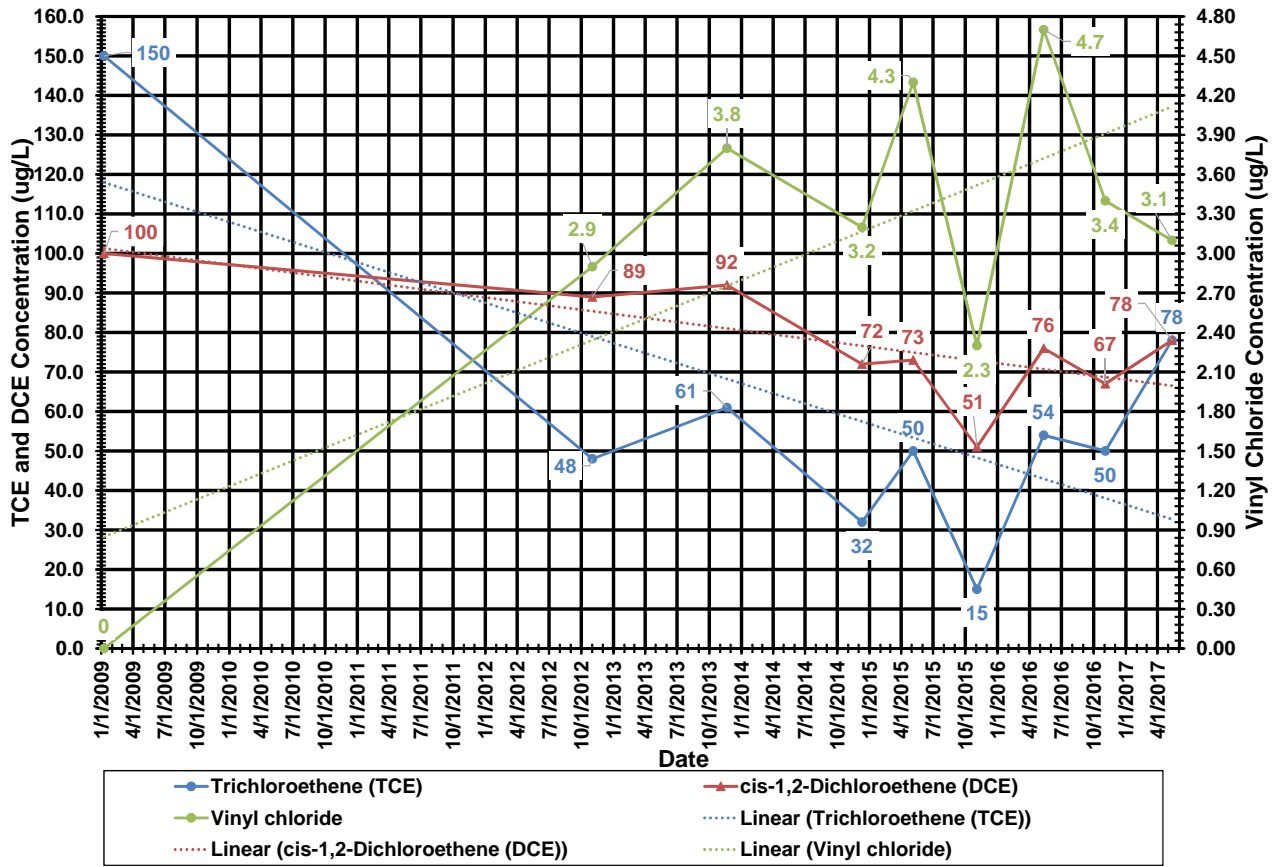
Note: In-situ soil treatment in source Area A with Daramend performed in June 2013.

Chart 4. Monitoring Well MW-3D Time Series Chart



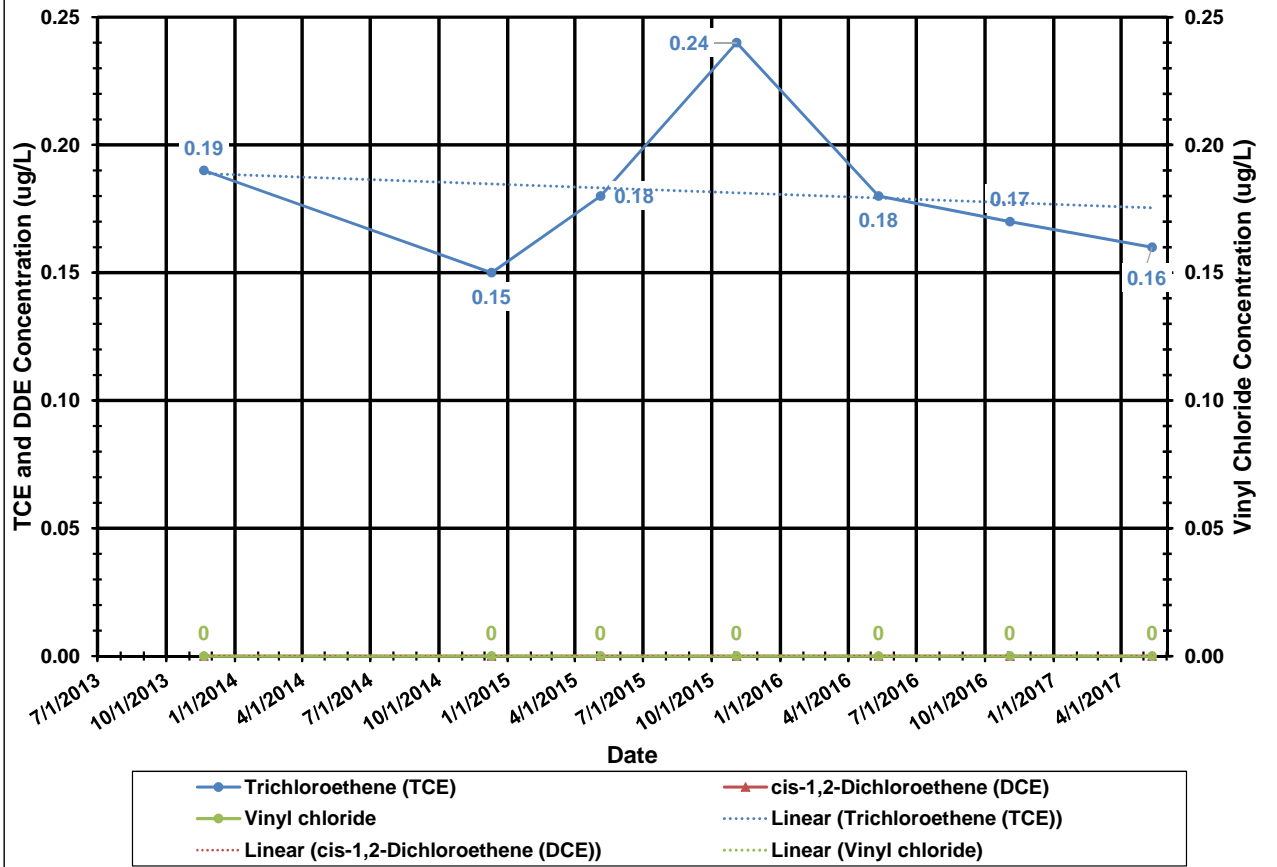
Note: In-situ soil treatment in source Area A with Daramend performed in June 2013.

Chart 5. Monitoring Well MW-5D Time Series Chart



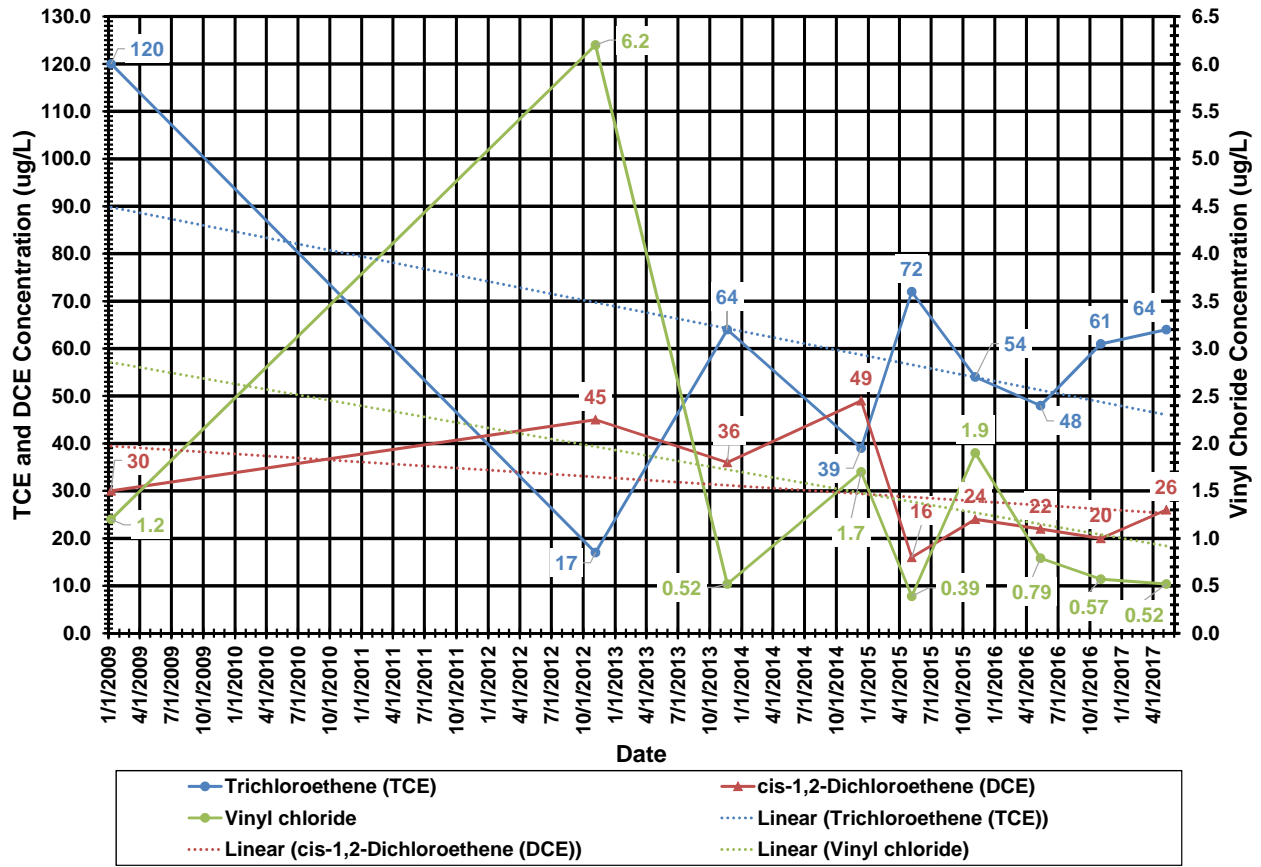
Note: In-situ soil treatment in source Area A with Daramend performed in June 2013.

Chart 6. Monitoring Well MW-9S Time Series Chart



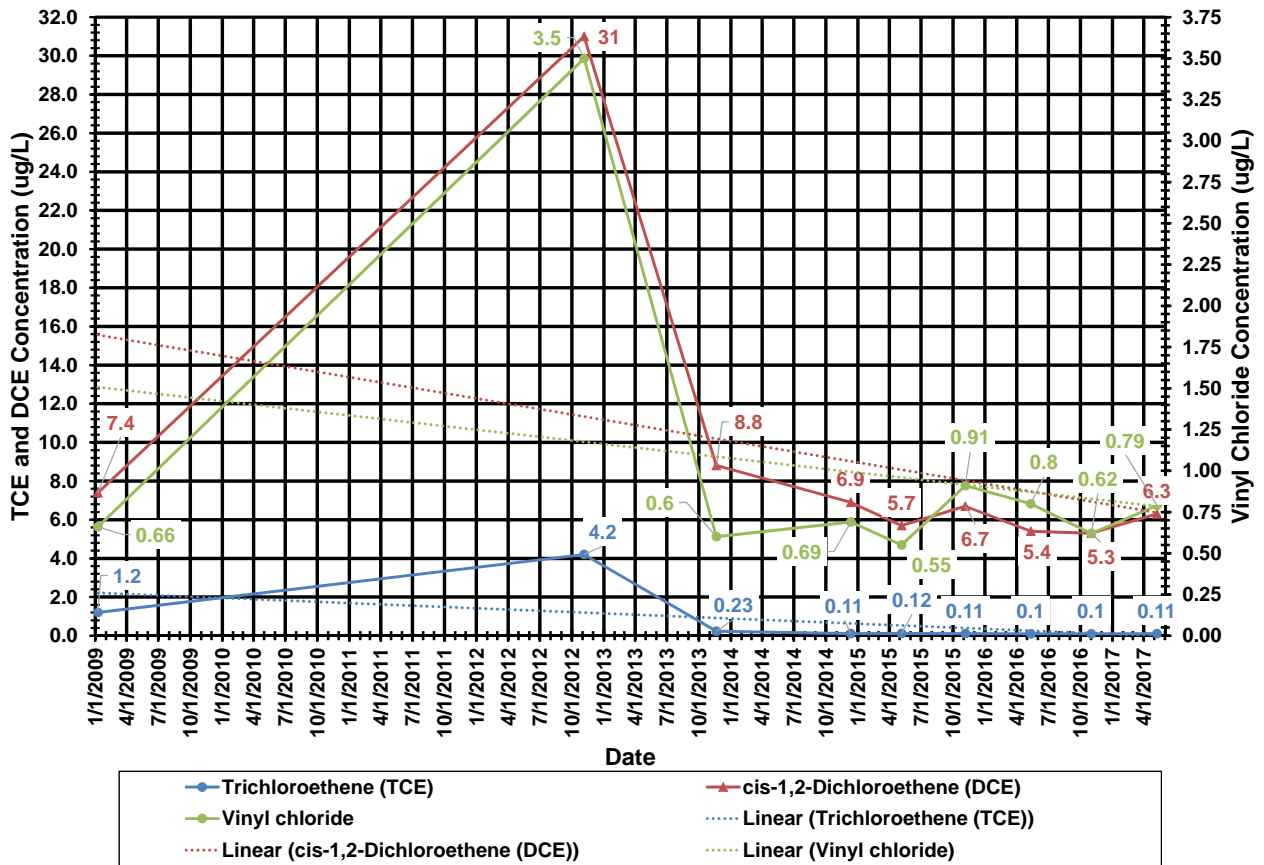
Note: In-situ soil treatment in source Area A with Daramend performed in June 2013.

Chart 7. Monitoring Well MW-12S Time Series Chart



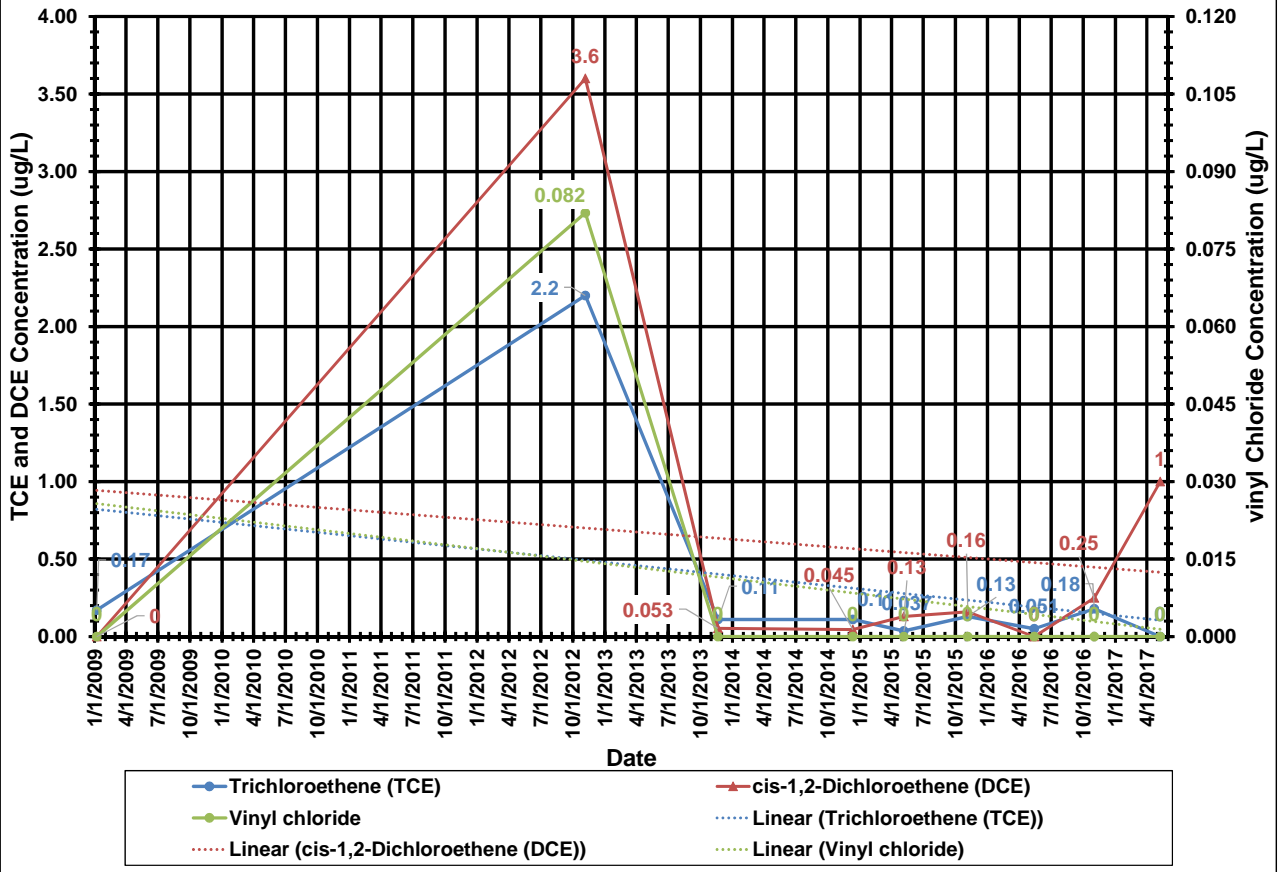
Note: In-situ soil treatment in source Area A with Daramend performed in June 2013.

Chart 8. Monitoring Well MW-12D Time Series Chart



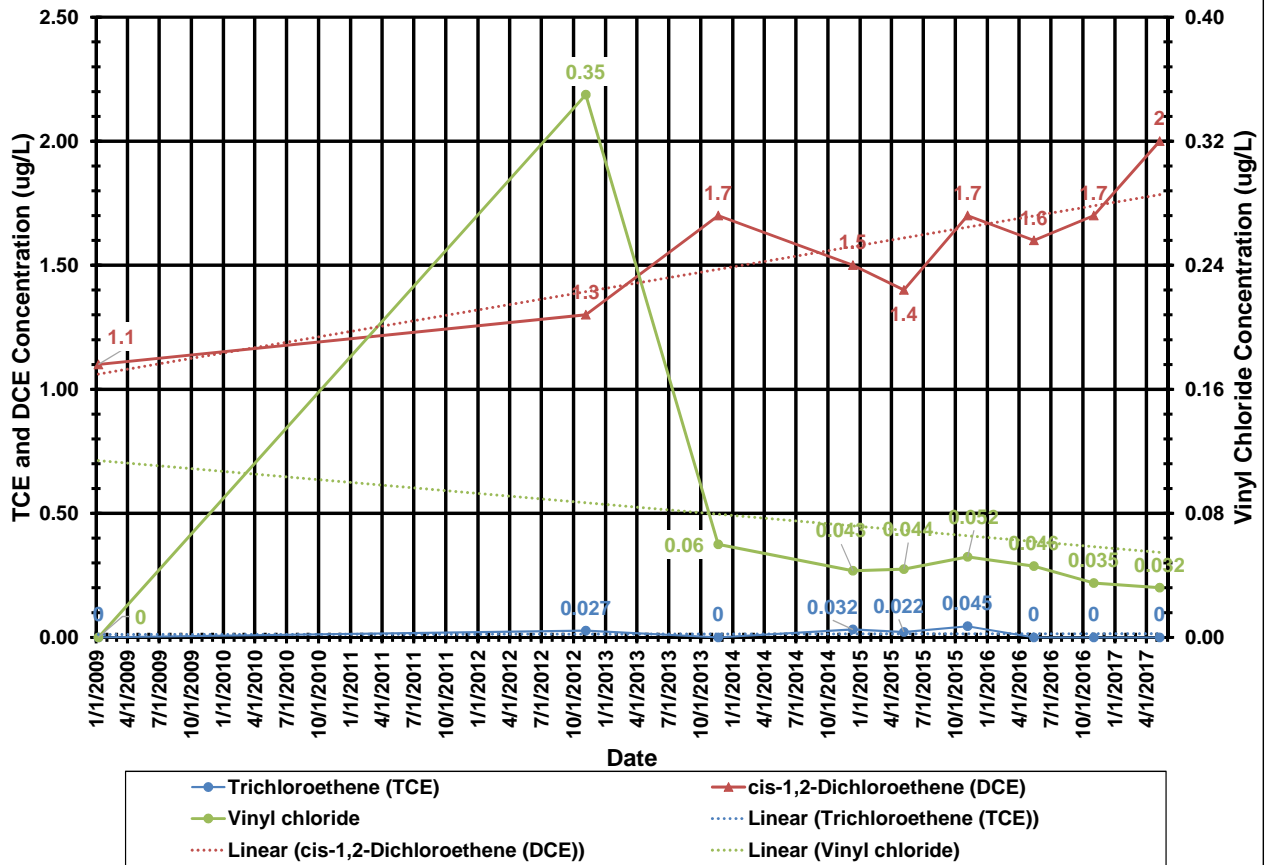
Note: In-situ soil treatment in source Area A with Daramend performed in June 2013.

Chart 9. Monitoring Well MW-13S Time Series Chart



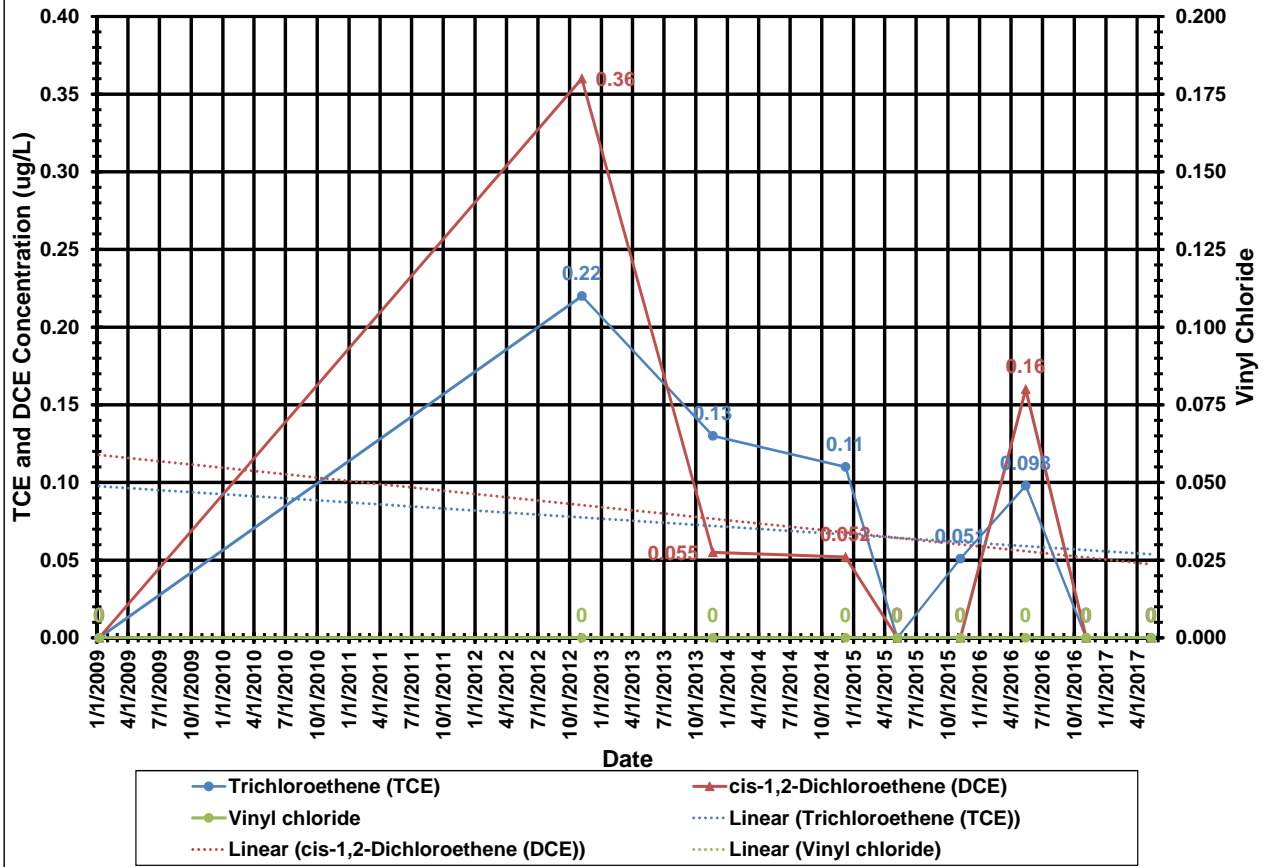
Note: In-situ soil treatment in source Area A with Daramend performed in June 2013.

Chart 10. Monitoring Well MW-13D Time Series Chart



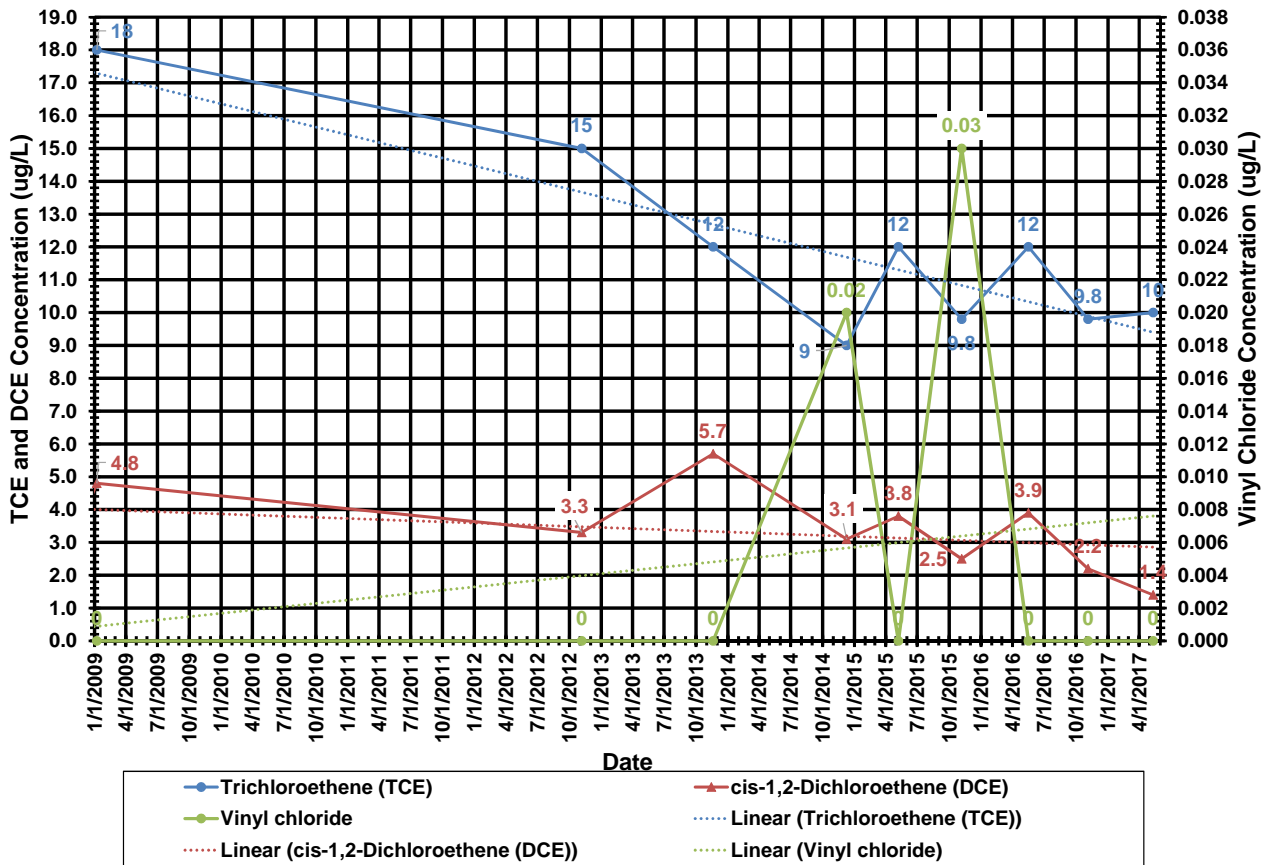
Note: In-situ soil treatment in source Area A with Daramend performed in June 2013.

Chart 11. Monitoring Well MW-15S Time Series Chart



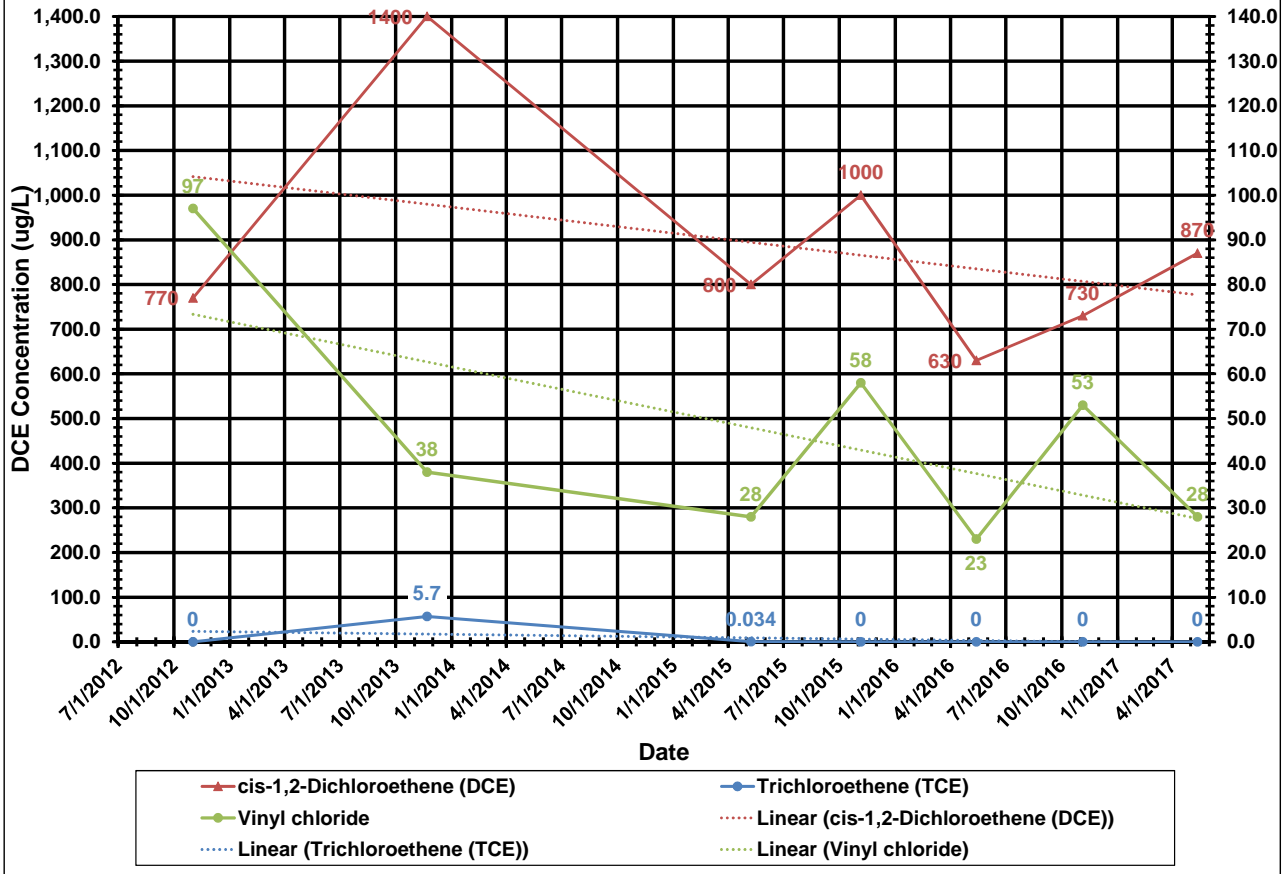
Note: In-situ soil treatment in source Area A with Daramend performed in June 2013.

Chart 12. Monitoring Well MW-15D Time Series Chart



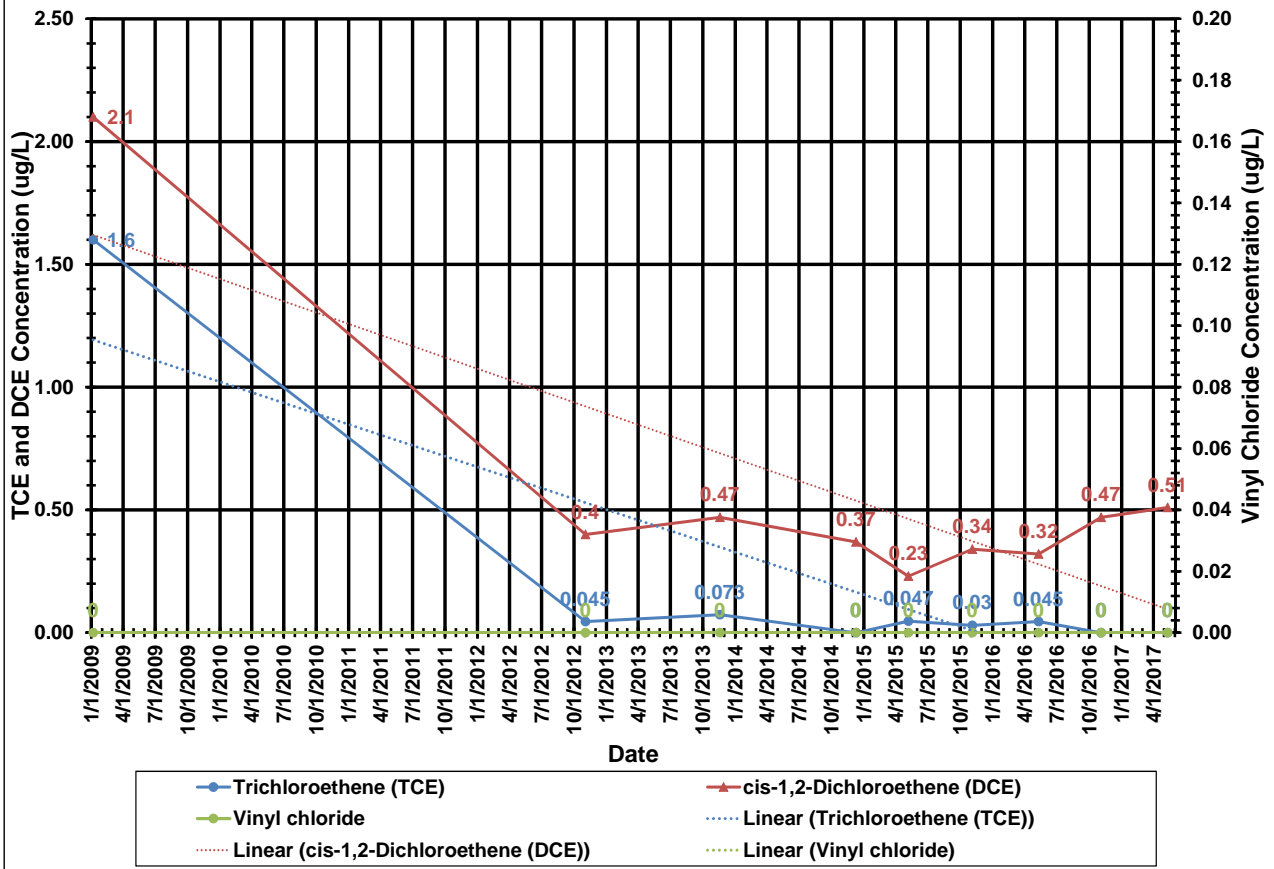
Note: In-situ soil treatment in source Area A with Daramend performed in June 2013.

Chart 13. Monitoring Well MW-16S Time Series Chart



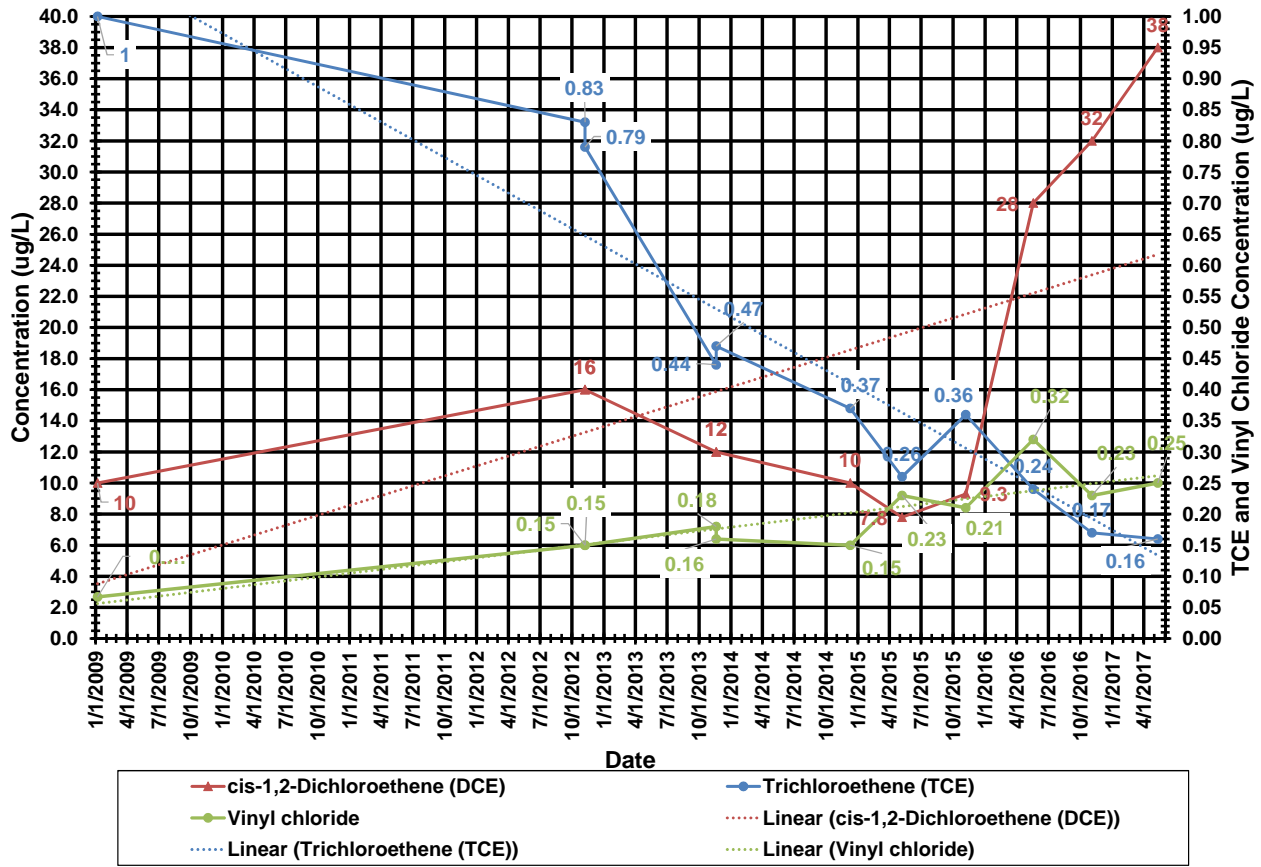
Note: In-situ soil treatment in source Area A with Daramend performed in June 2013.

Chart 14. Monitoring Well MW-101B Time Series Chart



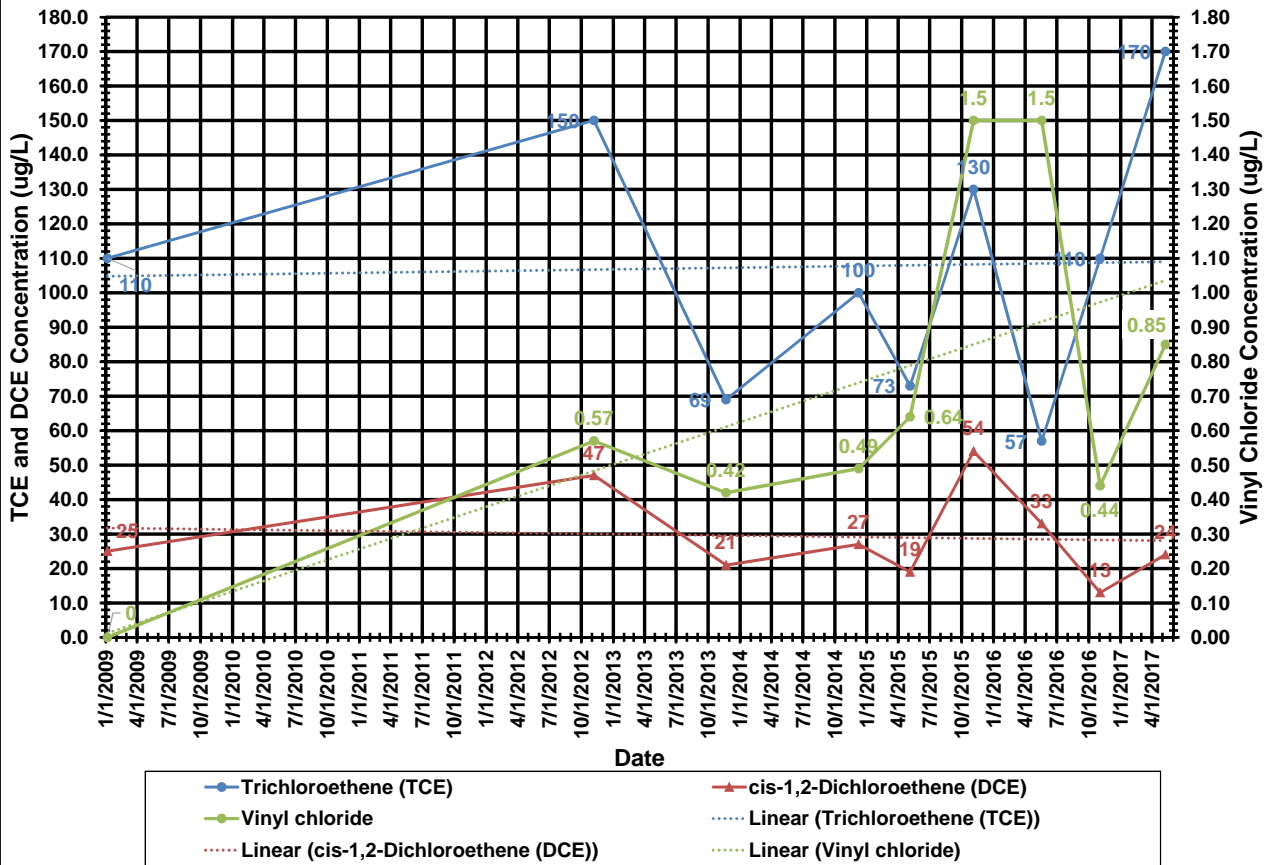
Note: In-situ soil treatment in source Area A with Daramend performed in June 2013.

Chart 15. Monitoring Well MW-102D Time Series Chart



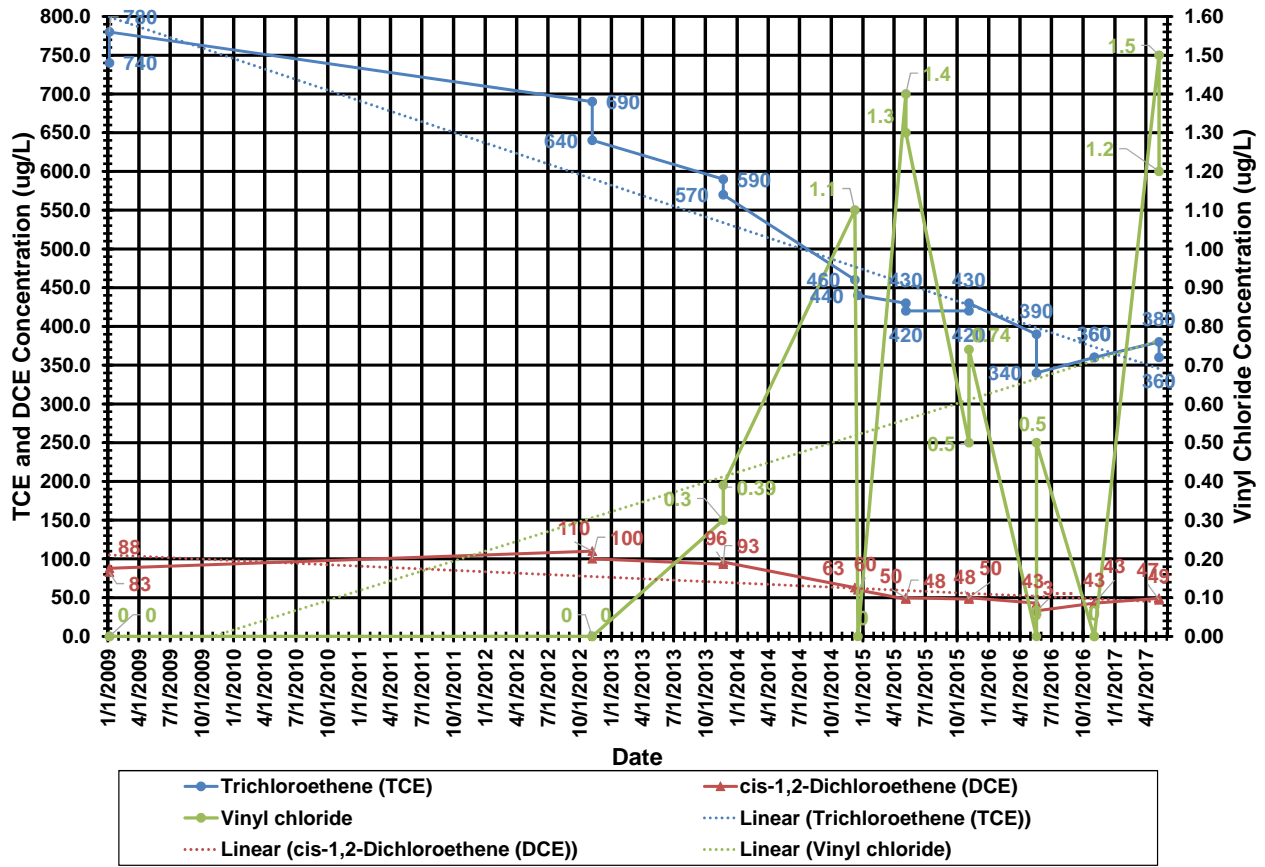
Note: In-situ soil treatment in source Area A with Daramend performed in June 2013.

Chart 16. Monitoring Well MW-103S Time Series Chart



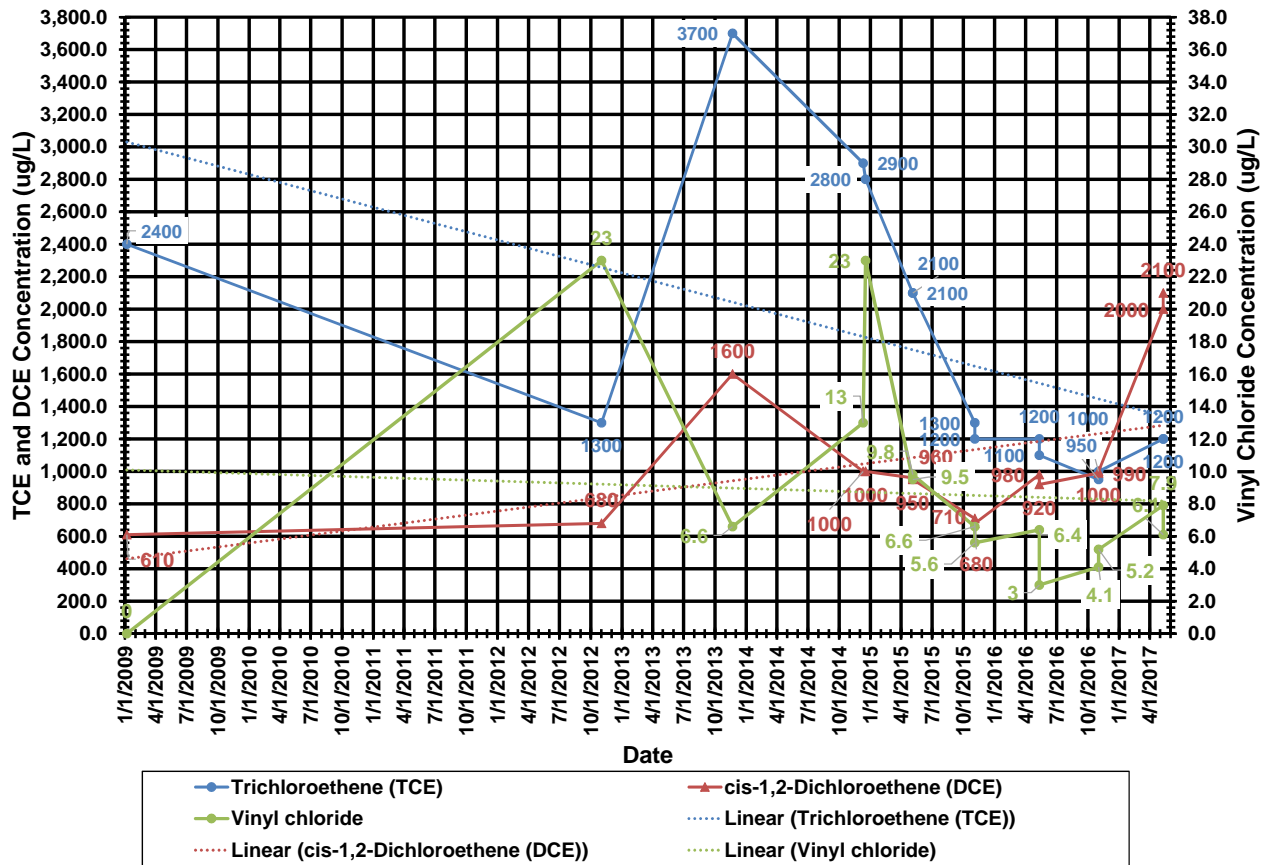
Note: In-situ soil treatment in source Area A with Daramend performed in June 2013.

Chart 17. Monitoring Well MW-103D Time Series Chart



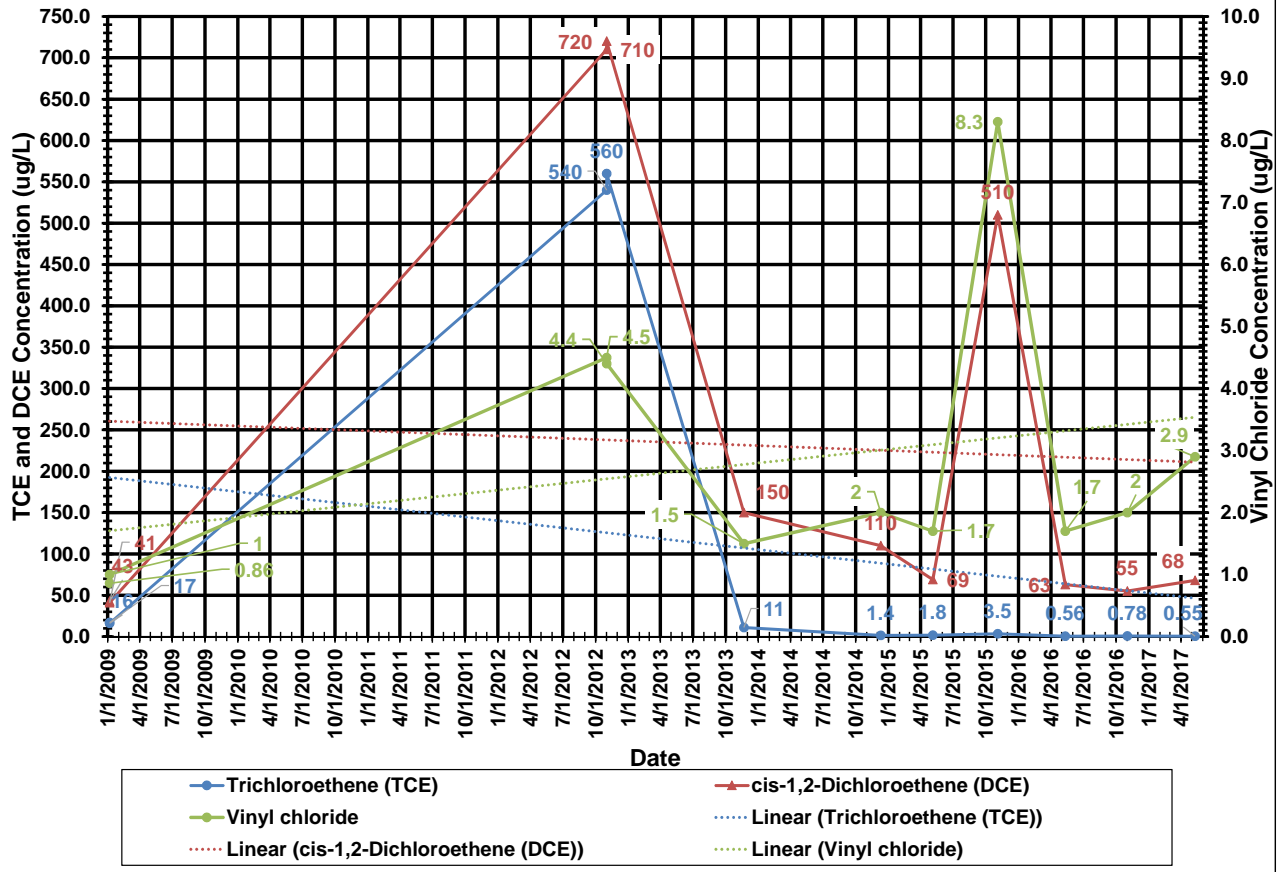
Note: In-situ soil treatment in source Area A with Daramend performed in June 2013.

Chart 18. Monitoring Well MW-105S Time Series Chart



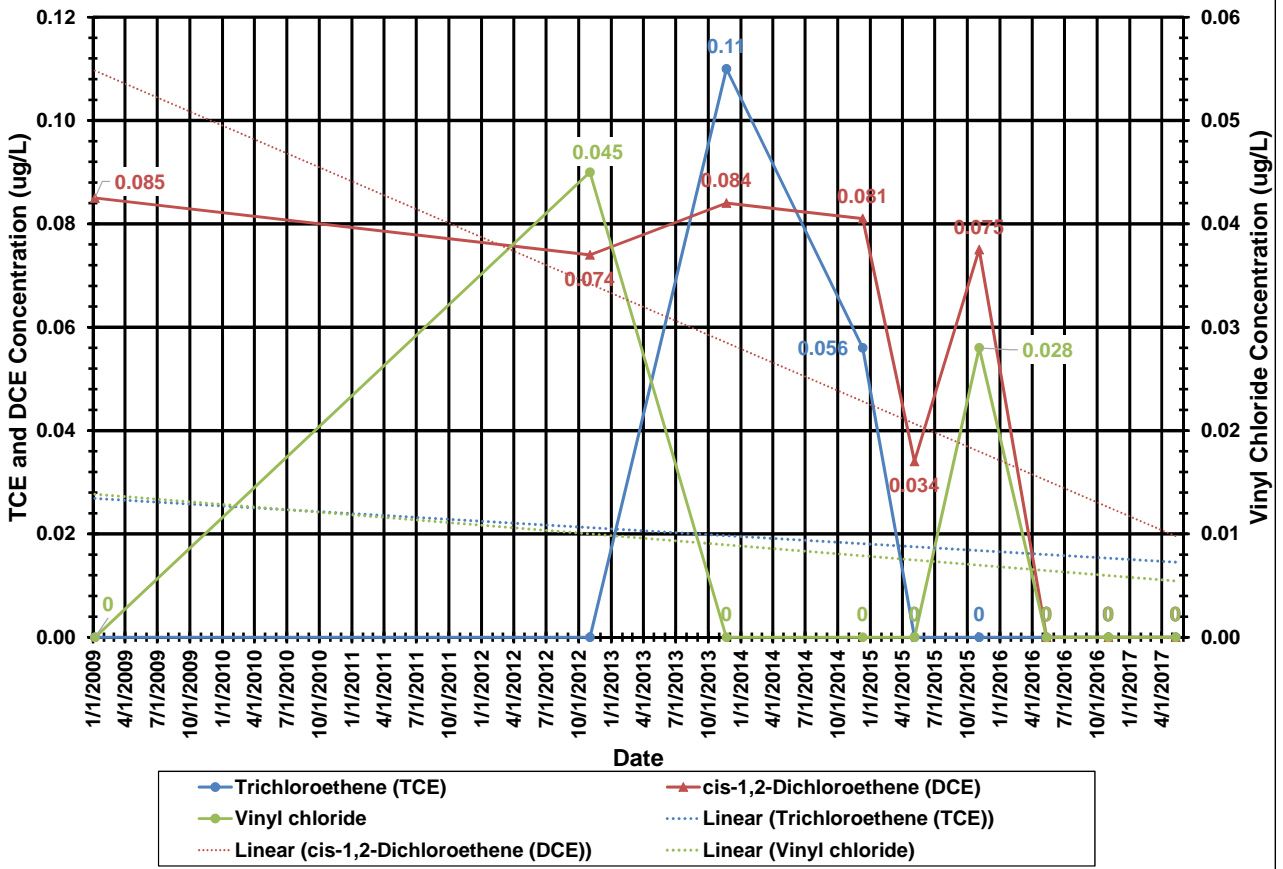
Note: In-situ soil treatment in source Area A with Daramend performed in June 2013.

Chart 19. Monitoring Well MW-105D Time Series Chart



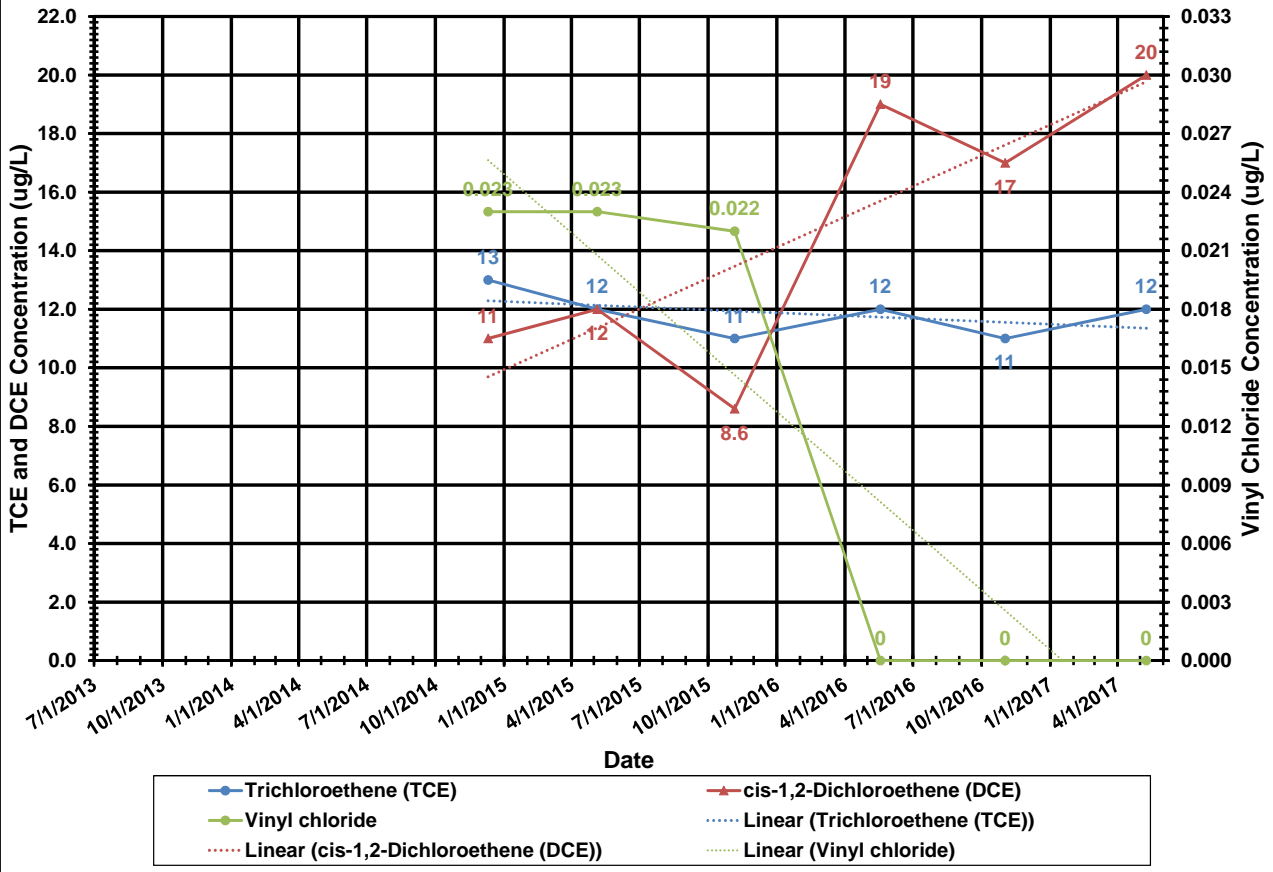
Note: In-situ soil treatment in source Area A with Daramend performed in June 2013.

Chart 20. Monitoring Well MW-105B Time Series Chart



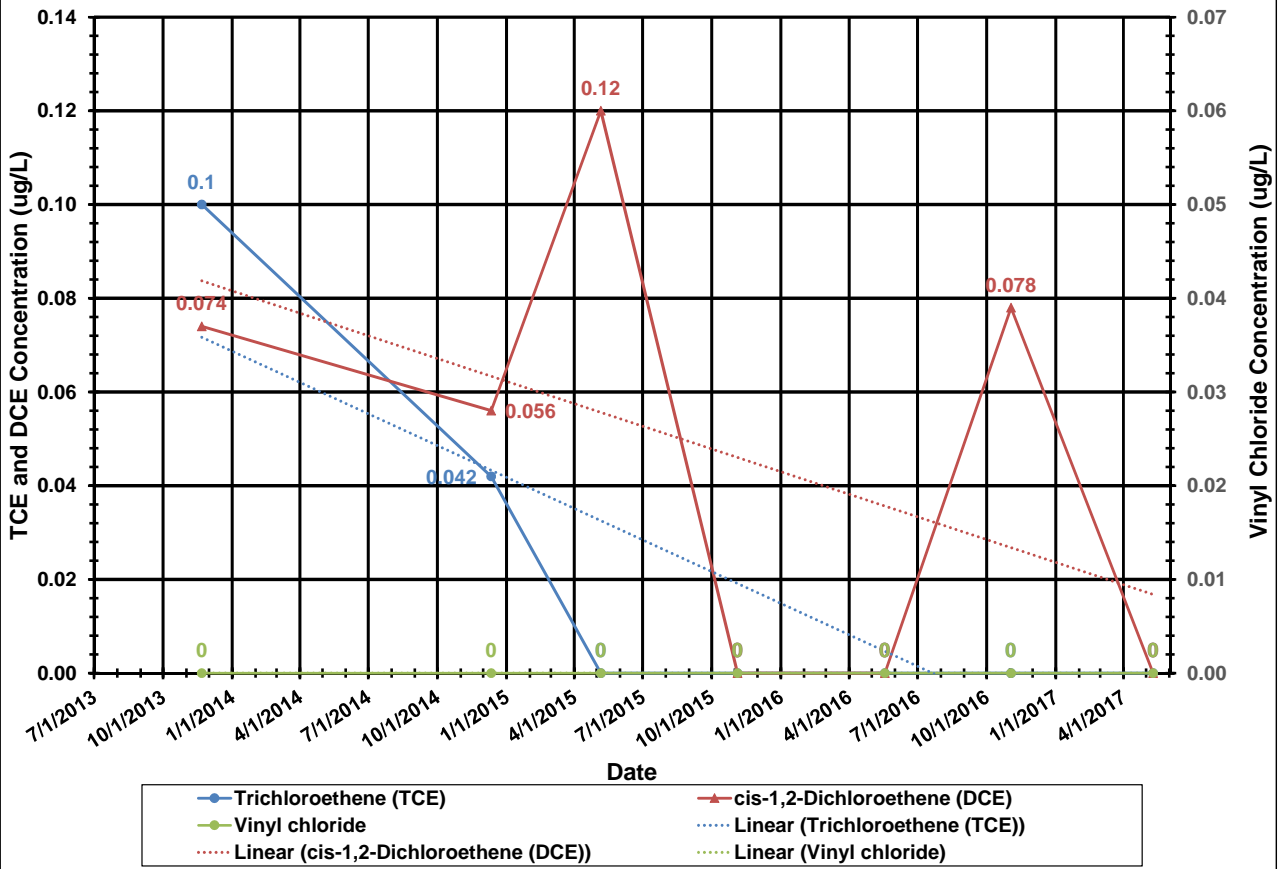
Note: In-situ soil treatment in source Area A with Daramend performed in June 2013.

Chart 21. Monitoring Well TW-2021 Time Series Chart



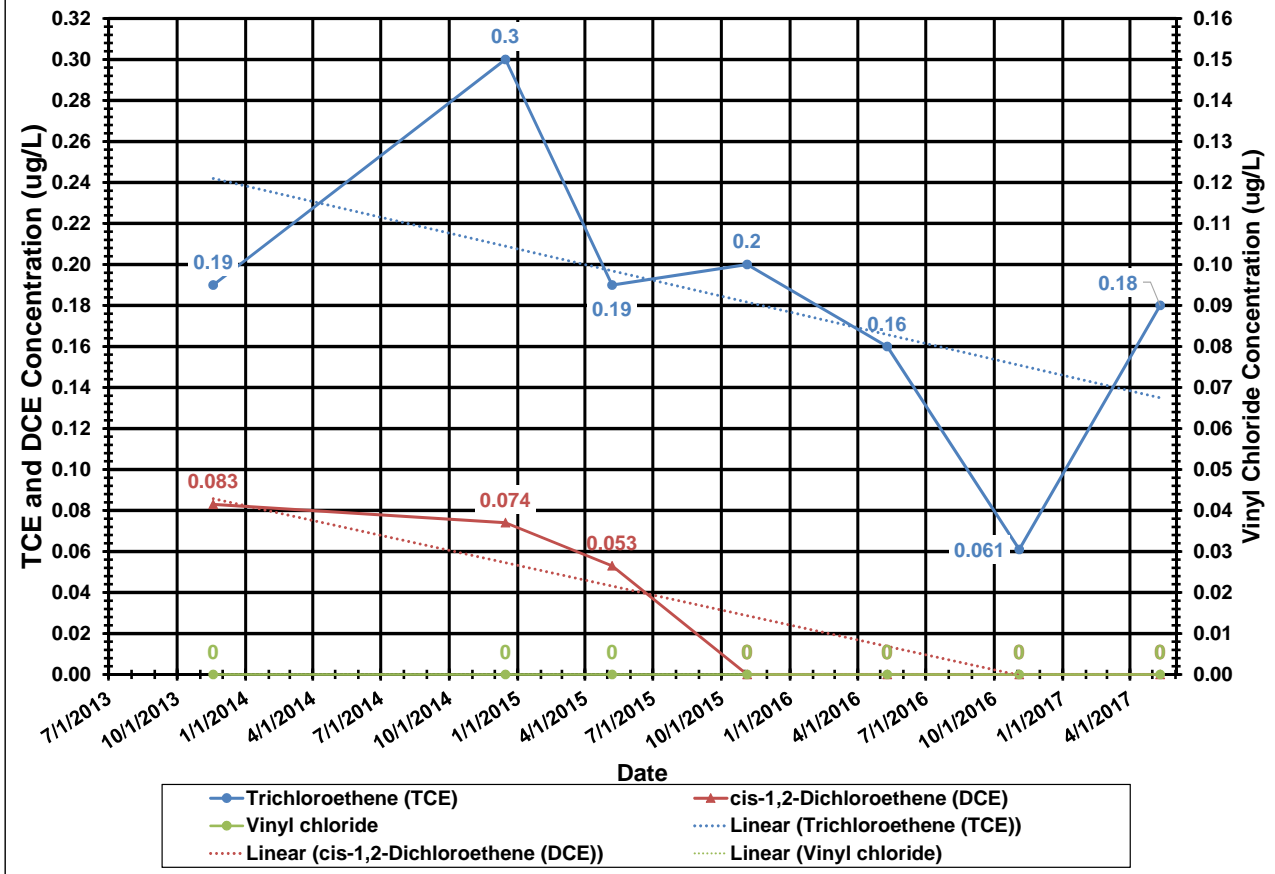
Note: In-situ soil treatment in source Area A with Daramend performed in June 2013.

Chart 22. Monitoring Well OW-6 Time Series Chart



Note: In-situ soil treatment in source Area A with Daramend performed in June 2013.

Chart 23. Monitoring Well MW-14DR Time Series Chart



Note: In-situ soil treatment in source Area A with Daramend performed in June 2013.

APPENDIX A

**MONITORING WELLS AND
RESIDENTIAL WELLS OUTSIDE SAMPLE SPIGOTS PHOTOGRAPHS**



Left to Right: MW-15B, MW-15S, MW-15D



Left to Right: MW-102D, MW-102S



MW-101B



Foreground: MW-106S
Background: MW-106D



Left: MW-13D
Right: MW-13S showing heaved concrete pad.



MW-5D



Left: MW-103D

Right: MW-103S



MW-2D



Foreground: MW-3D



OW-6



Left: MW-12D
Middle: MW-12B
Right: MW-12S



Left: MW-105B
Middle: MW-105D
Right: MW-105S



MW-101S



MW-14DR



Left: MW-4S
Right: MW-4D



MW-16S



MW-9S



Front: MW-1S, Back: MW-1D



MW-104S



MW-104D



TW-202I



LEFT: PW-08
sampling
spigot.

Direction:
Northeast

RIGHT: PW-10
sampling
spigot.

Direction:
Northeast





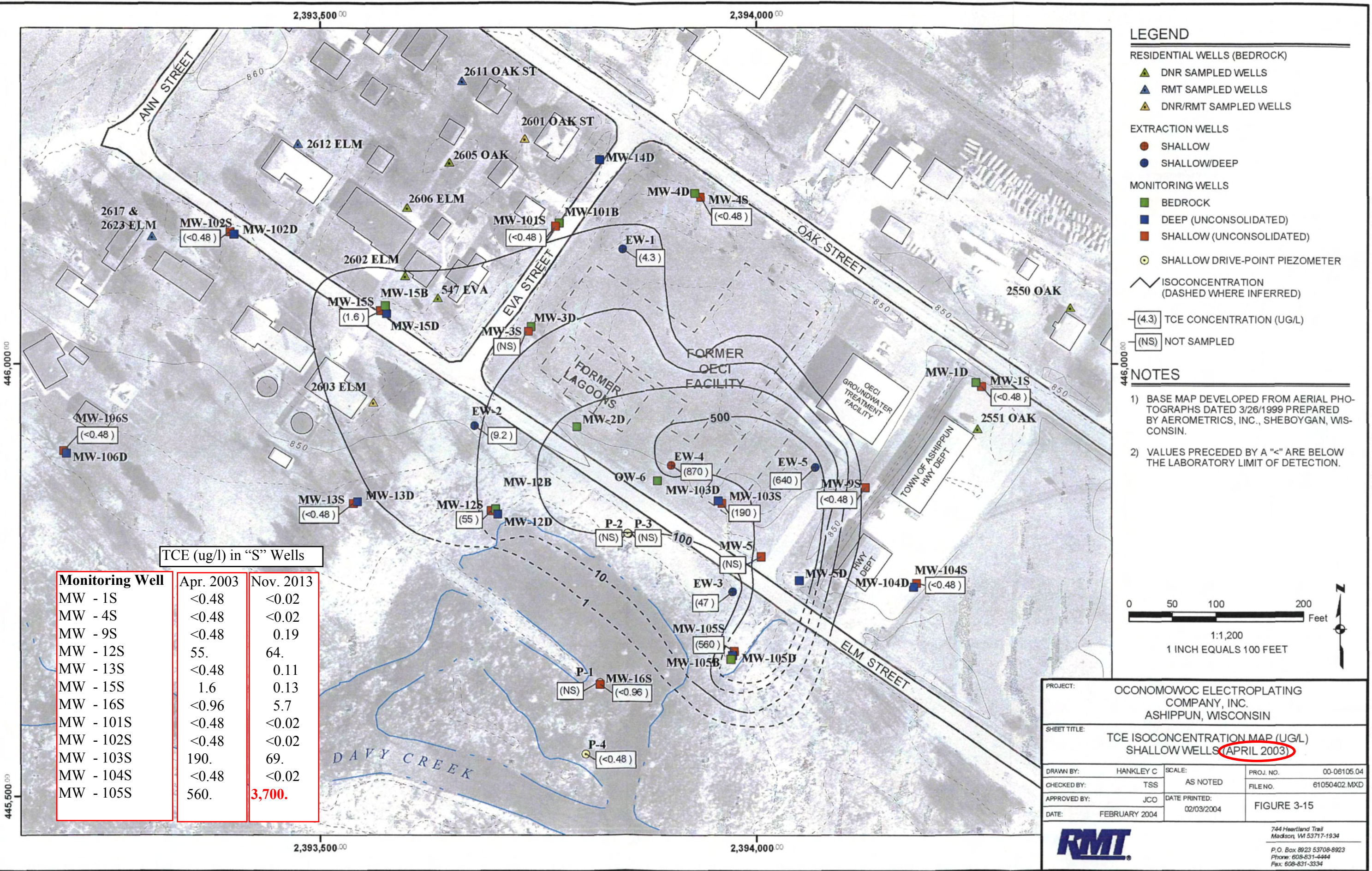
ABOVE: PW-07 sampling spigot
Direction: South



ABOVE: PW-04 sampling spigot.
Direction: North

APPENDIX B

**APRIL 2003, MAY 2015 AND MAY 2016
ISOCONCENTRATION MAPS**

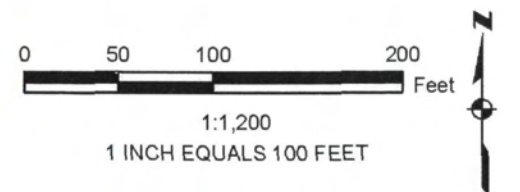


- ### LEGEND
- RESIDENTIAL WELLS (BEDROCK)**
- ▲ DNR SAMPLED WELLS
 - ▲ RMT SAMPLED WELLS
 - ▲ DNR/RMT SAMPLED WELLS
- EXTRACTION WELLS**
- SHALLOW
 - SHALLOW/DEEP
- MONITORING WELLS**
- BEDROCK
 - DEEP (UNCONSOLIDATED)
 - SHALLOW (UNCONSOLIDATED)
 - SHALLOW DRIVE-POINT PIEZOMETER
- ISOCONCENTRATION (DASHED WHERE INFERRED)
- (4.3) TCE CONCENTRATION (UG/L)
- (NS) NOT SAMPLED

- ### NOTES
- 1) BASE MAP DEVELOPED FROM AERIAL PHOTOGRAPHS DATED 3/26/1999 PREPARED BY AEROMETRICS, INC., SHEBOYGAN, WISCONSIN.
 - 2) VALUES PRECEDED BY A "<" ARE BELOW THE LABORATORY LIMIT OF DETECTION.

TCE (ug/l) in "S" Wells

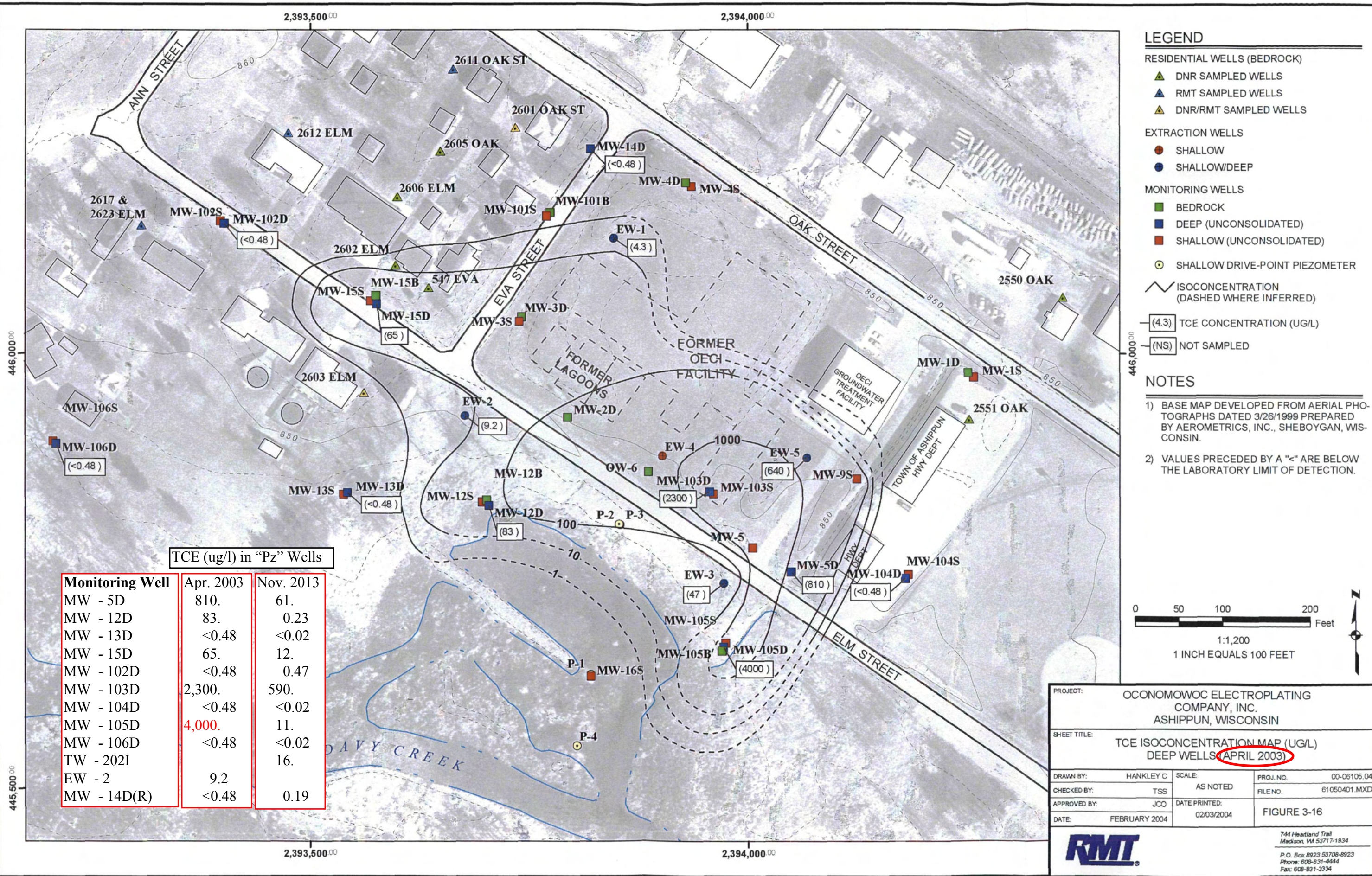
Monitoring Well	Apr. 2003	Nov. 2013
MW - 1S	<0.48	<0.02
MW - 4S	<0.48	<0.02
MW - 9S	<0.48	0.19
MW - 12S	55.	64.
MW - 13S	<0.48	0.11
MW - 15S	1.6	0.13
MW - 16S	<0.96	5.7
MW - 101S	<0.48	<0.02
MW - 102S	<0.48	<0.02
MW - 103S	190.	69.
MW - 104S	<0.48	<0.02
MW - 105S	560.	3,700.



PROJECT:		OCONOMOWOC ELECTROPLATING COMPANY, INC. ASHIPPUN, WISCONSIN	
SHEET TITLE:		TCE ISOCONCENTRATION MAP (UG/L) SHALLOW WELLS (APRIL 2003)	
DRAWN BY:	HANKLEY C	SCALE:	AS NOTED
CHECKED BY:	TSS	PROJ. NO.:	00-06105.04
APPROVED BY:	JCO	FILE NO.:	61050402.MXD
DATE:	FEBRUARY 2004	DATE PRINTED:	02/03/2004
		FIGURE 3-15	

RMT

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Fax: 608-831-3334



LEGEND

RESIDENTIAL WELLS (BEDROCK)

- ▲ DNR SAMPLED WELLS
- ▲ RMT SAMPLED WELLS
- ▲ DNR/RMT SAMPLED WELLS

EXTRACTION WELLS

- SHALLOW
- SHALLOW/DEEP

MONITORING WELLS

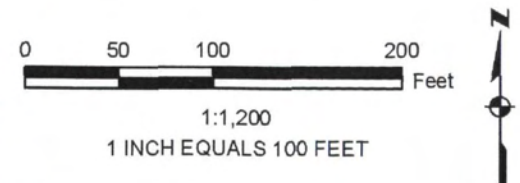
- BEDROCK
- DEEP (UNCONSOLIDATED)
- SHALLOW (UNCONSOLIDATED)
- SHALLOW DRIVE-POINT PIEZOMETER

— ISOCONCENTRATION (DASHED WHERE INFERRED)

(4.3) TCE CONCENTRATION (UG/L)

(NS) NOT SAMPLED

- ### NOTES
- 1) BASE MAP DEVELOPED FROM AERIAL PHOTOGRAPHS DATED 3/26/1999 PREPARED BY AEROMETRICS, INC., SHEBOYGAN, WISCONSIN.
 - 2) VALUES PRECEDED BY A "<" ARE BELOW THE LABORATORY LIMIT OF DETECTION.



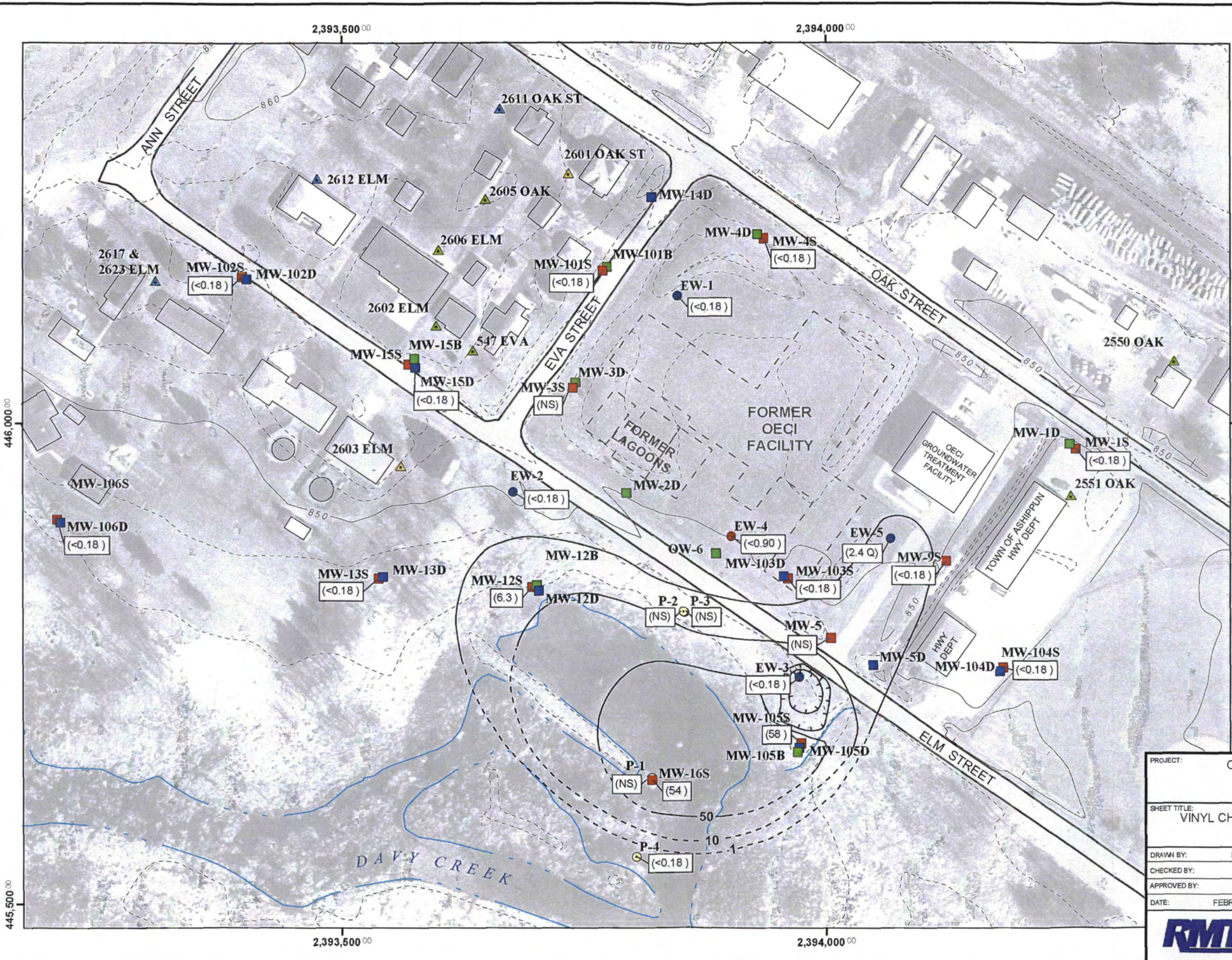
TCE (ug/l) in "Pz" Wells

Monitoring Well	Apr. 2003	Nov. 2013
MW - 5D	810.	61.
MW - 12D	83.	0.23
MW - 13D	<0.48	<0.02
MW - 15D	65.	12.
MW - 102D	<0.48	0.47
MW - 103D	2,300.	590.
MW - 104D	<0.48	<0.02
MW - 105D	4,000.	11.
MW - 106D	<0.48	<0.02
TW - 2021		16.
EW - 2	9.2	
MW - 14D(R)	<0.48	0.19

PROJECT: OCONOMOWOC ELECTROPLATING COMPANY, INC. ASHIPPUN, WISCONSIN			
SHEET TITLE: TCE ISOCONCENTRATION MAP (UG/L) DEEP WELLS (APRIL 2003)			
DRAWN BY: HANKLEY C	SCALE: AS NOTED	PROJ. NO: 00-06105.04	
CHECKED BY: TSS	DATE PRINTED: 02/03/2004	FILE NO: 61050401.MXD	
APPROVED BY: JCO	DATE: FEBRUARY 2004	FIGURE 3-16	

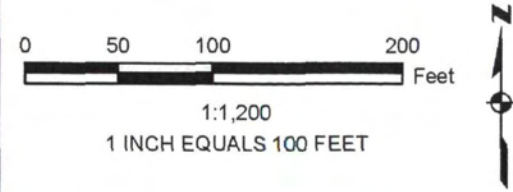
RMT

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- ### LEGEND
- RESIDENTIAL WELLS (BEDROCK)
 - ▲ DNR SAMPLED WELLS
 - ▲ RMT SAMPLED WELLS
 - ▲ DNR/RMT SAMPLED WELLS
 - EXTRACTION WELLS
 - SHALLOW
 - SHALLOW/DEEP
 - MONITORING WELLS
 - BEDROCK
 - DEEP (UNCONSOLIDATED)
 - SHALLOW (UNCONSOLIDATED)
 - SHALLOW DRIVE-POINT PIEZOMETER
 - ISOCONCENTRATION (DASHED WHERE INFERRED)
 - (4.3) VINYL CHLORIDE CONCENTRATION (UG/L)
 - (NS) NOT SAMPLED

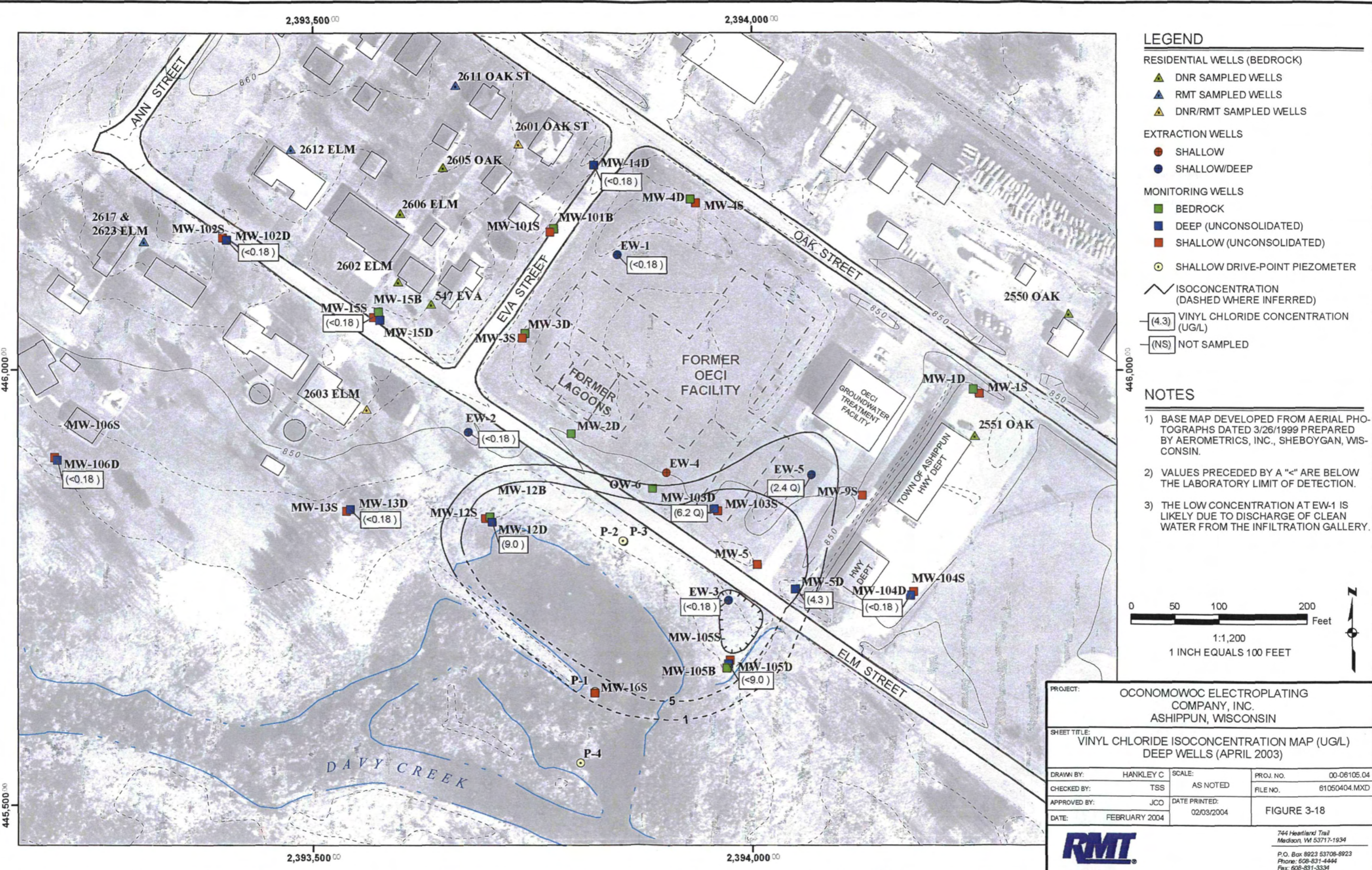
- ### NOTES
- 1) BASE MAP DEVELOPED FROM AERIAL PHOTOGRAPHS DATED 3/26/1999 PREPARED BY AEROMETRICS, INC., SHEBOYGAN, WISCONSIN.
 - 2) VALUES PRECEDED BY A "<" ARE BELOW THE LABORATORY LIMIT OF DETECTION.
 - 3) THE LOW CONCENTRATION AT EW-1 IS LIKELY DUE TO DISCHARGE OF CLEAN WATER FROM THE INFILTRATION GALLERY.



PROJECT:		OCONOMOWOC ELECTROPLATING COMPANY, INC. ASHIPPUN, WISCONSIN	
SHEET TITLE:		VINYL CHLORIDE ISOCONCENTRATION MAP (UG/L) SHALLOW WELLS (APRIL 2003)	
DRAWN BY:	HANKLEY C	SCALE:	AS NOTED
CHECKED BY:	TSS	DATE PRINTED:	02/03/2004
APPROVED BY:	JCO	PROJ. NO.:	00-06105.04
DATE:	FEBRUARY 2004	FILE NO.:	61050403.MXD
		FIGURE 3-17	



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LEGEND

RESIDENTIAL WELLS (BEDROCK)

- ▲ DNR SAMPLED WELLS
- ▲ RMT SAMPLED WELLS
- ▲ DNR/RMT SAMPLED WELLS

EXTRACTION WELLS

- SHALLOW
- SHALLOW/DEEP

MONITORING WELLS

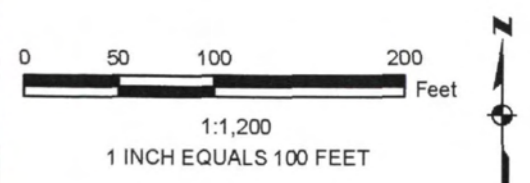
- BEDROCK
- DEEP (UNCONSOLIDATED)
- SHALLOW (UNCONSOLIDATED)
- SHALLOW DRIVE-POINT PIEZOMETER

— ISOCONCENTRATION (DASHED WHERE INFERRED)

(4.3) VINYL CHLORIDE CONCENTRATION (UG/L)

(NS) NOT SAMPLED

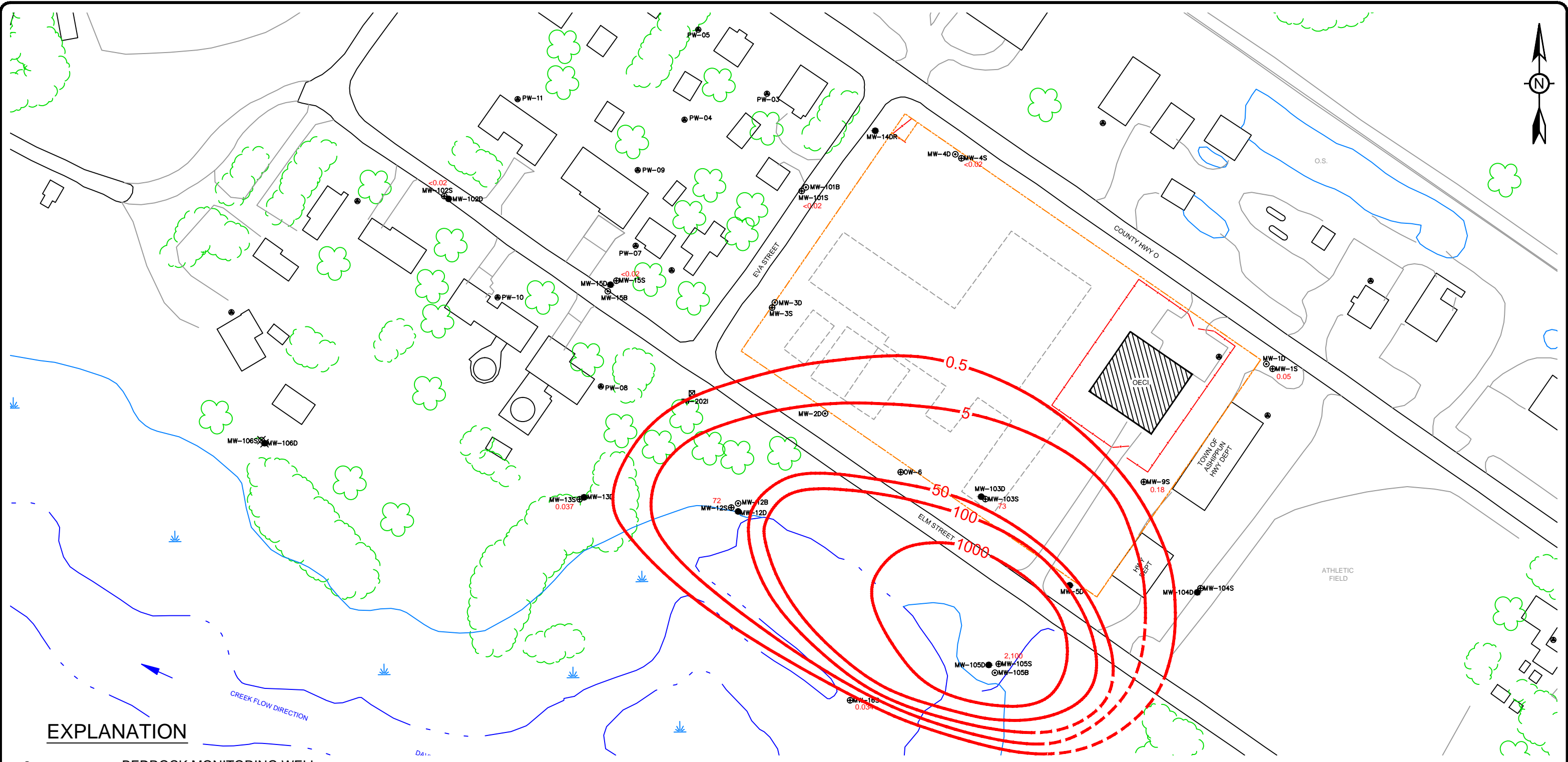
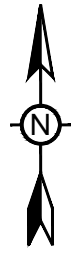
- ### NOTES
- 1) BASE MAP DEVELOPED FROM AERIAL PHOTOGRAPHS DATED 3/26/1999 PREPARED BY AEROMETRICS, INC., SHEBOYGAN, WISCONSIN.
 - 2) VALUES PRECEDED BY A "<" ARE BELOW THE LABORATORY LIMIT OF DETECTION.
 - 3) THE LOW CONCENTRATION AT EW-1 IS LIKELY DUE TO DISCHARGE OF CLEAN WATER FROM THE INFILTRATION GALLERY.



PROJECT: OCONOMOWOC ELECTROPLATING COMPANY, INC. ASHIPPUN, WISCONSIN		
SHEET TITLE: VINYL CHLORIDE ISOCONCENTRATION MAP (UG/L) DEEP WELLS (APRIL 2003)		
DRAWN BY: HANKLEY C	SCALE: AS NOTED	PROJ. NO. 00-06105.04
CHECKED BY: TSS		FILE NO. 61050404.MXD
APPROVED BY: JCO	DATE PRINTED: 02/03/2004	FIGURE 3-18
DATE: FEBRUARY 2004		

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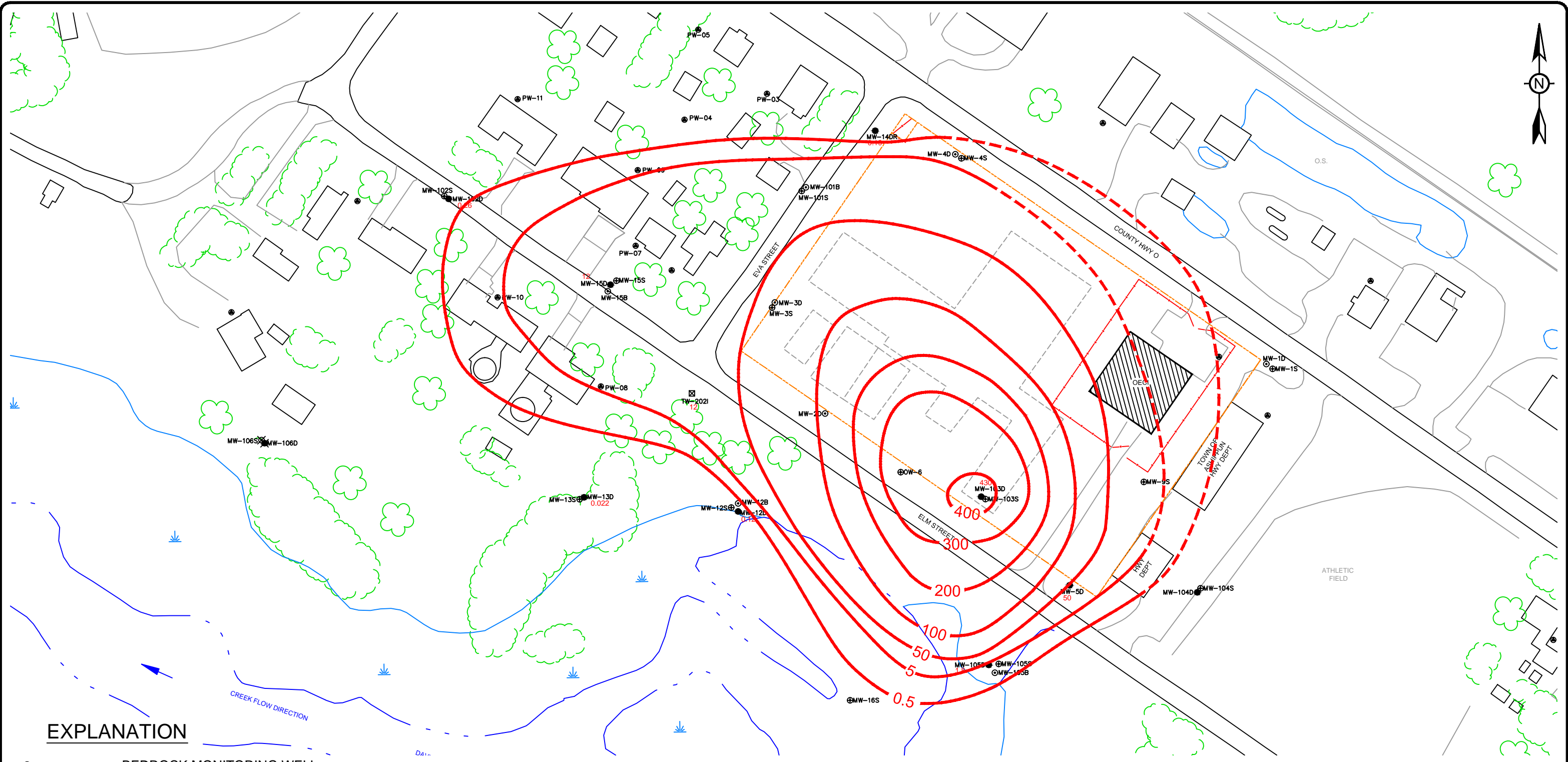
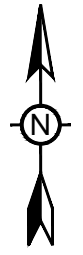
EXPLANATION

- ⊙MW-105B BEDROCK MONITORING WELL
- MW-105D DEEP UNCONSOLIDATED MONITORING WELL
- ⊕MW-105S SHALLOW UNCONSOLIDATED MONITORING WELL
- ⊙PW-11 RESIDENTIAL WELL
- ⊗MW-106D DEEP UNCONSOLIDATED SENTINEL WELL
- ⊗MW-106S SHALLOW UNCONSOLIDATED SENTINEL WELL
- ⊠TW-2021 TEMPORARY WELL
- FORMER OECI SITE BOUNDARY
- - - - - FENCED AREA

72
—50—
 TCE CONCENTRATION (ug/L)
 TCE ISOCONCENTRATION CONTOUR (ug/L)
 DASHED WHERE INFERRED



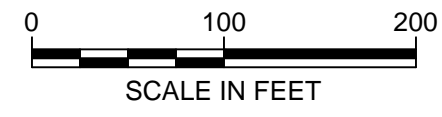
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LOCATION:		ASHIPPUN, WISCONSIN	
	CHECKED	MAM	FIGURE: 5
	DRAFTED	HJW	
	PROJECT	117-7413001	
DATE	7/6/15		



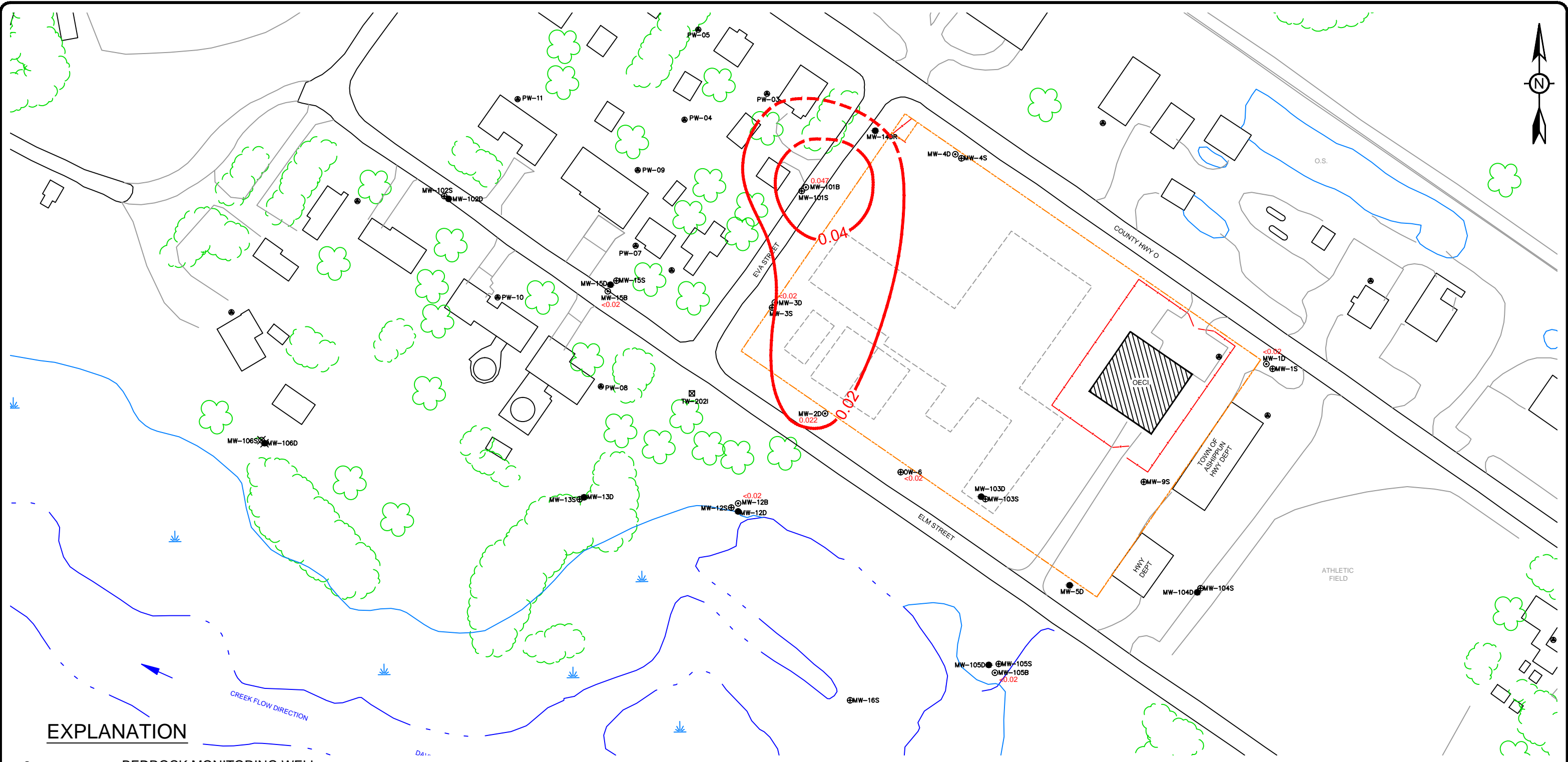
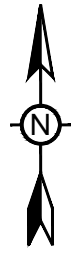
EXPLANATION

- ⊙MW-105B BEDROCK MONITORING WELL
- MW-105D DEEP UNCONSOLIDATED MONITORING WELL
- ⊕MW-105S SHALLOW UNCONSOLIDATED MONITORING WELL
- ⊙PW-11 RESIDENTIAL WELL
- ⊗MW-106D DEEP UNCONSOLIDATED SENTINEL WELL
- ⊗MW-106S SHALLOW UNCONSOLIDATED SENTINEL WELL
- ⊠TW-2021 TEMPORARY WELL
- FORMER OEI SITE BOUNDARY
- - - - - FENCED AREA

50 TCE CONCENTRATION (ug/L)
 50 TCE ISOCONCENTRATION CONTOUR (ug/L)
 DASHED WHERE INFERRED



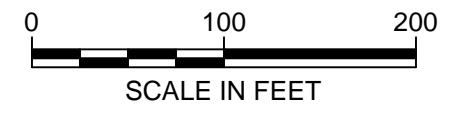
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LOCATION: ASHIPPUN, WISCONSIN			
	CHECKED	MAM	FIGURE: 6
	DRAFTED	HJW	
	PROJECT	117-7413001	
DATE	7/10/12		



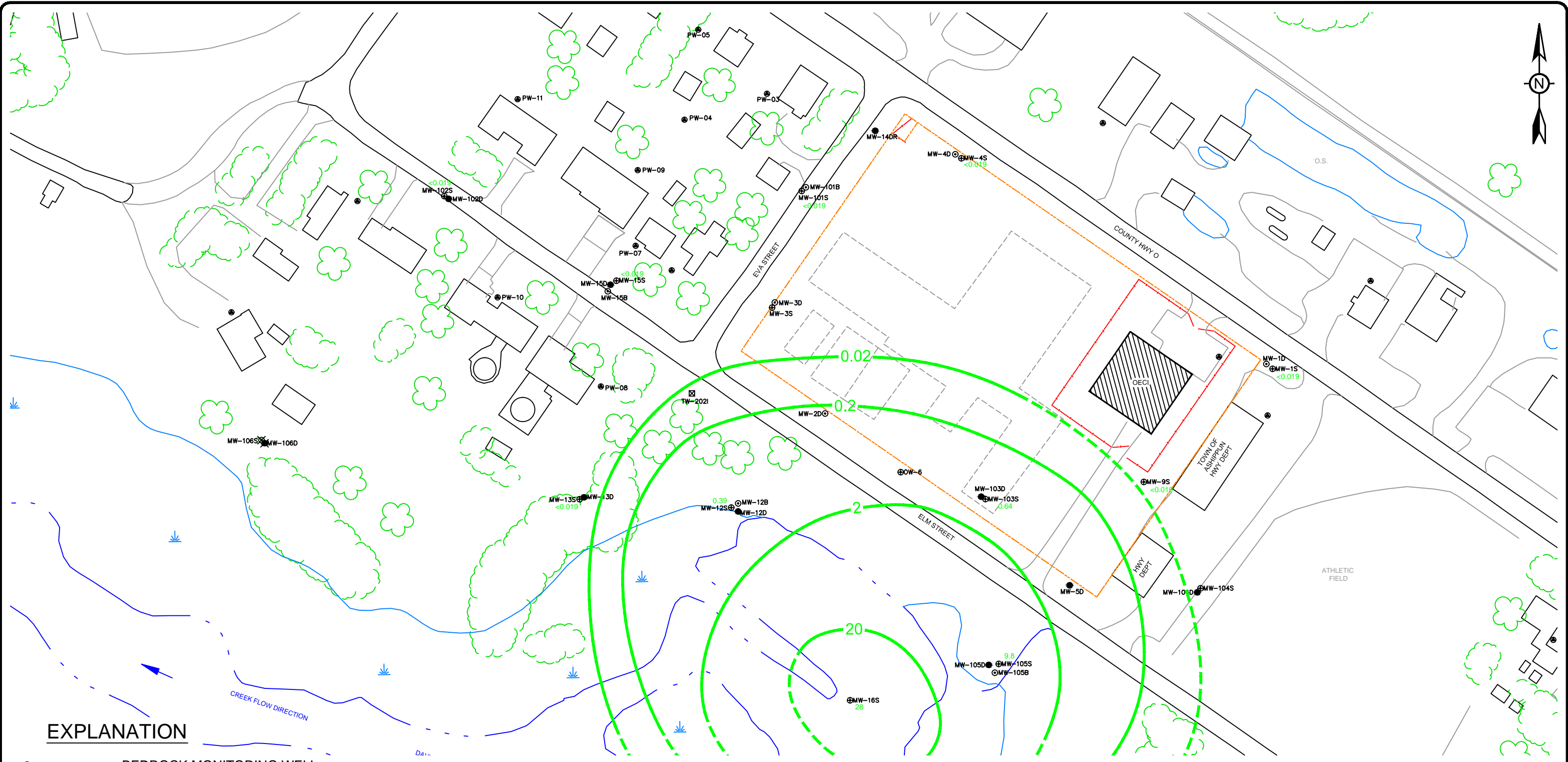
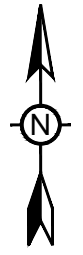
EXPLANATION

- ⊙MW-105B BEDROCK MONITORING WELL
- MW-105D DEEP UNCONSOLIDATED MONITORING WELL
- ⊕MW-105S SHALLOW UNCONSOLIDATED MONITORING WELL
- ⊙PW-11 RESIDENTIAL WELL
- ⊗MW-106D DEEP UNCONSOLIDATED SENTINEL WELL
- ⊗MW-106S SHALLOW UNCONSOLIDATED SENTINEL WELL
- ⊠TW-2021 TEMPORARY WELL
- - - - - FORMER OECl SITE BOUNDARY
- - - - - FENCED AREA

0.047 TCE CONCENTRATION (ug/L)
 - - - - - 0.04 TCE ISOCONCENTRATION CONTOUR (ug/L)
 DASHED WHERE INFERRED



TITLE: OCONOMOWOC ELECTROPLATING COMPANY, INC. MAY 2015 SAMPLING EVENT BEDROCK MONITORING WELLS TCE ISOCONCENTRATION MAP			
LOCATION: ASHIPPUN, WISCONSIN			
	CHECKED	MAM	FIGURE: 7
	DRAFTED	HJW	
	PROJECT	117-7413001	
DATE	7/10/12		

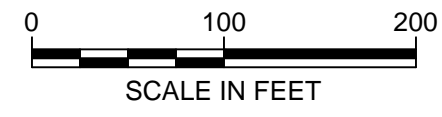


EXPLANATION

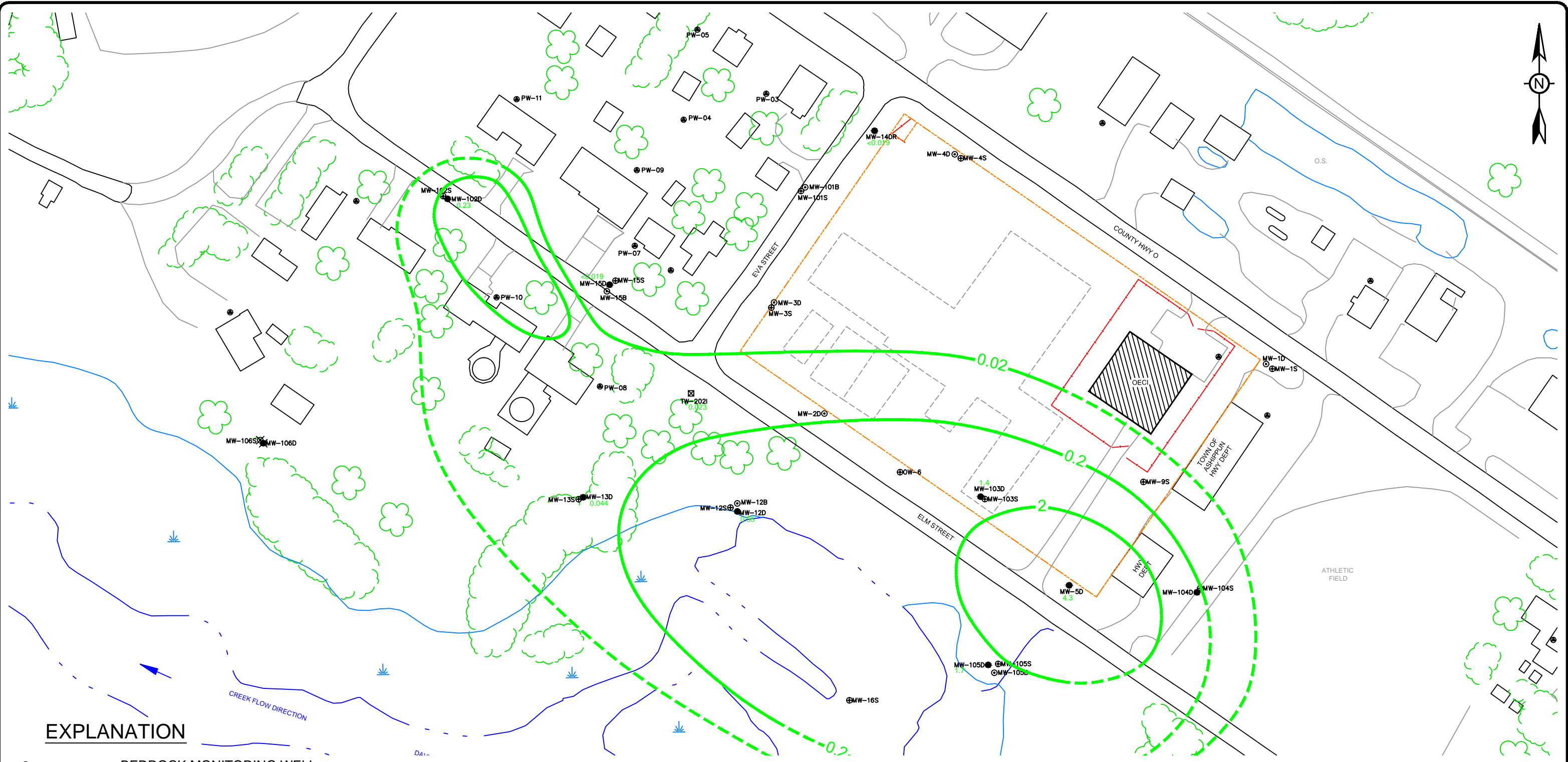
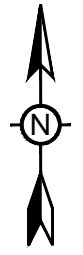
- ⊙MW-105B BEDROCK MONITORING WELL
- MW-105D DEEP UNCONSOLIDATED MONITORING WELL
- ⊕MW-105S SHALLOW UNCONSOLIDATED MONITORING WELL
- ⊙PW-11 RESIDENTIAL WELL
- ⊗MW-106D DEEP UNCONSOLIDATED SENTINEL WELL
- ⊗MW-106S SHALLOW UNCONSOLIDATED SENTINEL WELL
- ⊠TW-2021 TEMPORARY WELL
- FORMER OECI SITE BOUNDARY
- - - - - FENCED AREA

28
2.0

VINYL CHLORIDE CONCENTRATION (ug/L)
 VINYL CHLORIDE ISOCONCENTRATION CONTOUR (ug/L)
 DASHED WHERE INFERRED



TITLE: OCONOMOWOC ELECTROPLATING COMPANY, INC. MAY 2015 SAMPLING EVENT SHALLOW-DEPTH MONITORING WELLS VINYL CHLORIDE ISOCONCENTRATION MAP		
LOCATION: ASHIPUN, WISCONSIN		
	CHECKED	MAM
	DRAFTED	HJW
	PROJECT	117-7413001
DATE	8/20/15	FIGURE: 8

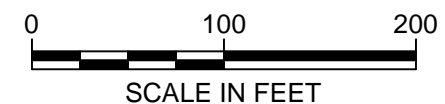


EXPLANATION

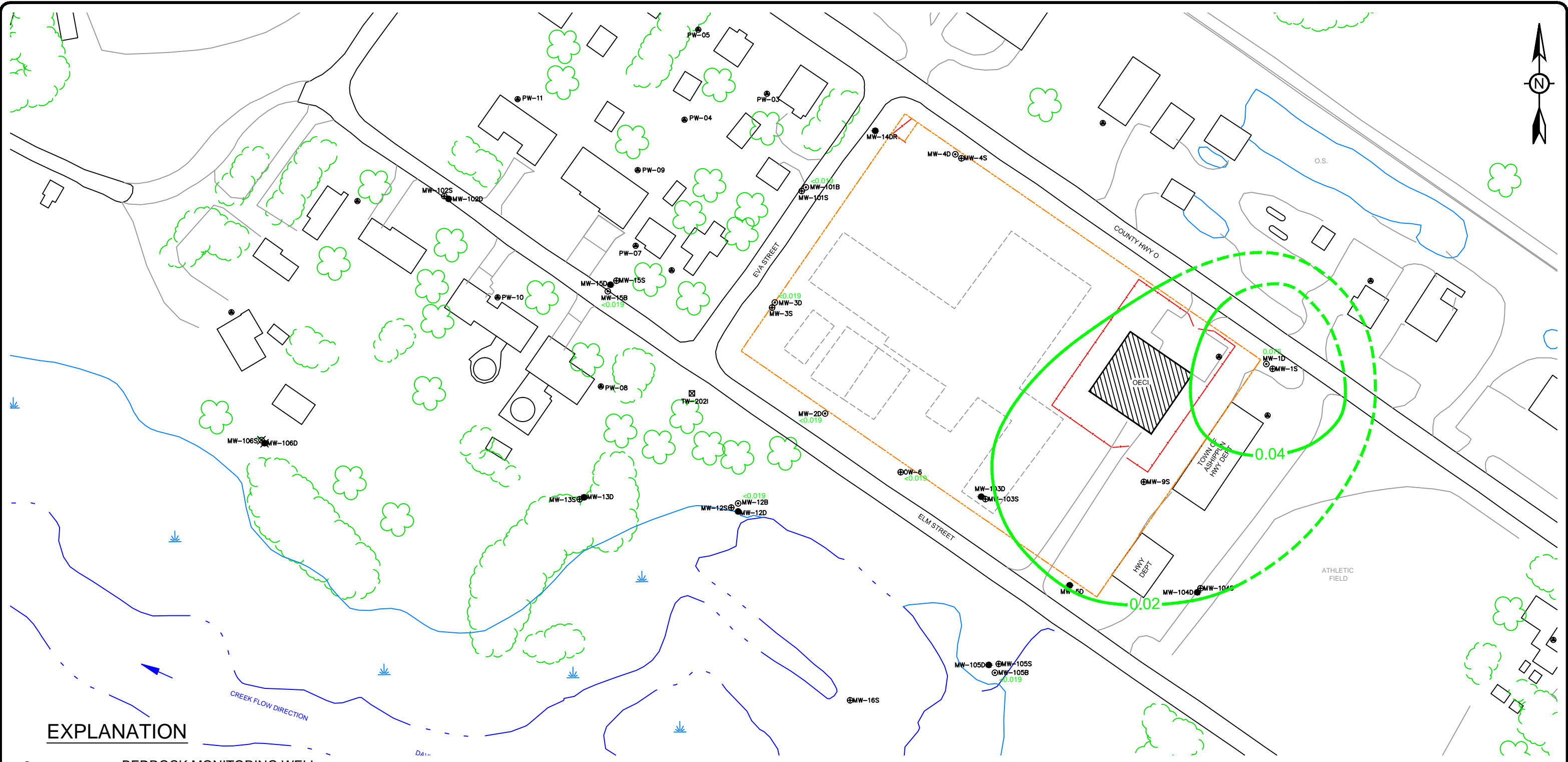
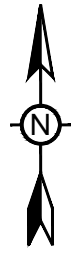
- ⊙MW-105B BEDROCK MONITORING WELL
- MW-105D DEEP UNCONSOLIDATED MONITORING WELL
- ⊕MW-105S SHALLOW UNCONSOLIDATED MONITORING WELL
- PW-11 RESIDENTIAL WELL
- ⊙MW-106D DEEP UNCONSOLIDATED SENTINEL WELL
- ⊕MW-106S SHALLOW UNCONSOLIDATED SENTINEL WELL
- ⊠TW-2021 TEMPORARY WELL
- FORMER OECI SITE BOUNDARY
- - - - - FENCED AREA



VINYL CHLORIDE CONCENTRATION (ug/L)
 VINYL CHLORIDE ISOCONCENTRATION CONTOUR (ug/L)
 DASHED WHERE INFERRED



TITLE: OCONOMOWOC ELECTROPLATING COMPANY, INC. MAY 2015 SAMPLING EVENT MID-DEPTH MONITORING WELLS VINYL CHLORIDE ISOCONCENTRATION MAP			
LOCATION: ASHIPPUN, WISCONSIN			
TETRA TECH	CHECKED	MAM	FIGURE: 9
	DRAFTED	HJW	
	PROJECT	117-7413001	
	DATE	7/10/12	



EXPLANATION

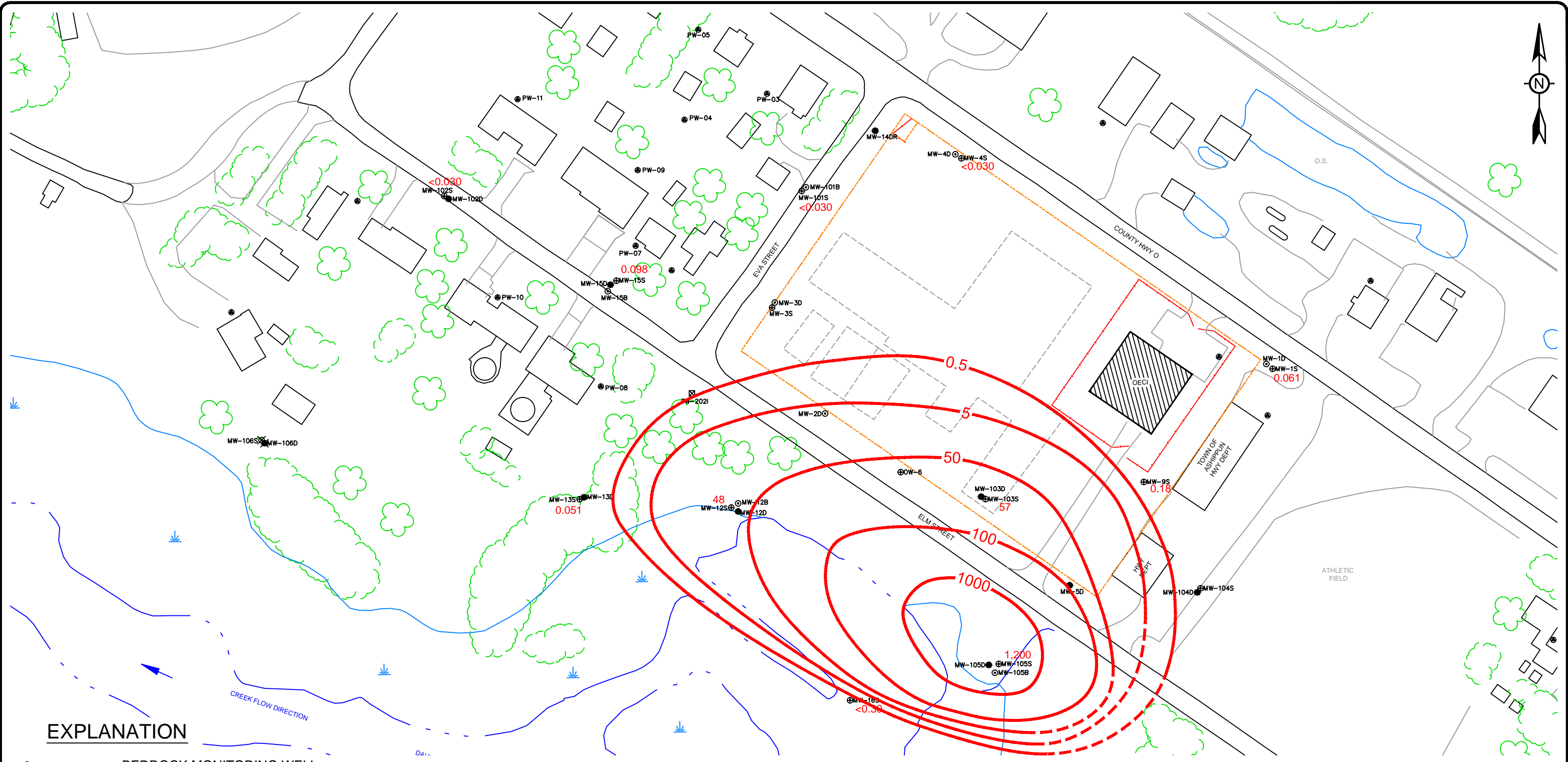
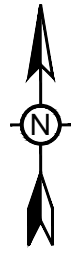
- ⊙MW-105B BEDROCK MONITORING WELL
- MW-105D DEEP UNCONSOLIDATED MONITORING WELL
- ⊕MW-105S SHALLOW UNCONSOLIDATED MONITORING WELL
- ⊙PW-11 RESIDENTIAL WELL
- ⊗MW-106D DEEP UNCONSOLIDATED SENTINEL WELL
- ⊗MW-106S SHALLOW UNCONSOLIDATED SENTINEL WELL
- ⊠TW-2021 TEMPORARY WELL
- FORMER OECI SITE BOUNDARY
- - - - - FENCED AREA

0.076 VINYL CHLORIDE CONCENTRATION (ug/L)

— 0.04 — VINYL CHLORIDE ISOCONCENTRATION CONTOUR (ug/L)
DASHED WHERE INFERRED



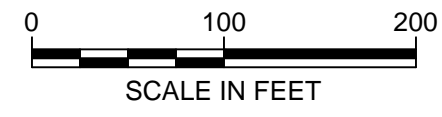
TITLE: OCONOMOWOC ELECTROPLATING COMPANY, INC. MAY 2015 SAMPLING EVENT BEDROCK MONITORING WELLS VINYL CHLORIDE ISOCONCENTRATION MAP			
LOCATION: ASHIPPUN, WISCONSIN			
	CHECKED	MAM	FIGURE: 10
	DRAFTED	HJW	
	PROJECT	117-7413001	
DATE	7/6/15		



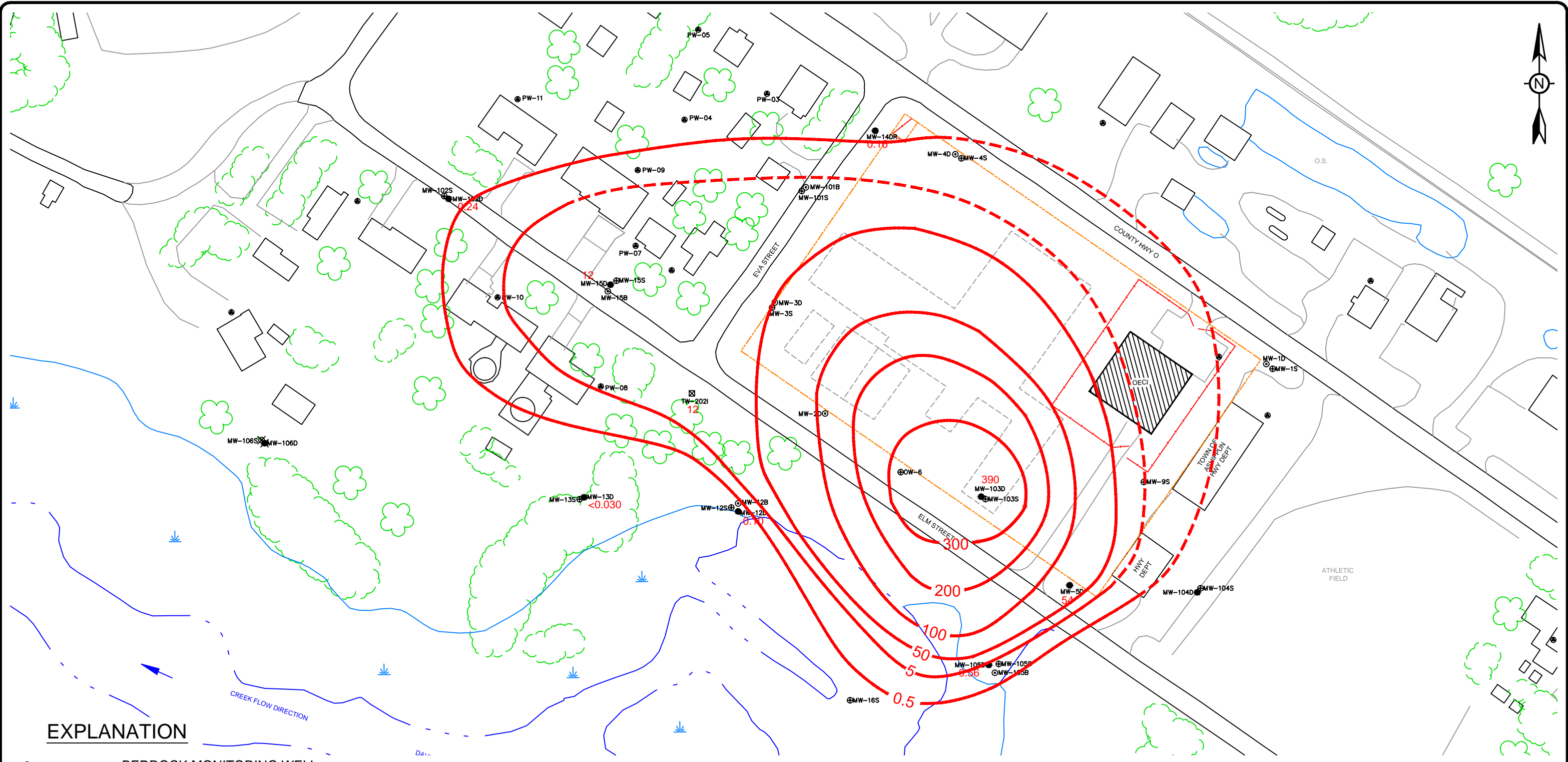
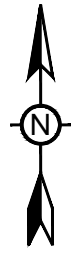
EXPLANATION

- ⊙MW-105B BEDROCK MONITORING WELL
- MW-105D DEEP UNCONSOLIDATED MONITORING WELL
- ⊕MW-105S SHALLOW UNCONSOLIDATED MONITORING WELL
- ⊙PW-11 RESIDENTIAL WELL
- ⊗MW-106D DEEP UNCONSOLIDATED SENTINEL WELL
- ⊗MW-106S SHALLOW UNCONSOLIDATED SENTINEL WELL
- ⊠TW-2021 TEMPORARY WELL
- FORMER OECI SITE BOUNDARY
- - - - - FENCED AREA

72
— 50 —
 TCE CONCENTRATION (ug/L)
 TCE ISOCONCENTRATION CONTOUR (ug/L)
 DASHED WHERE INFERRED



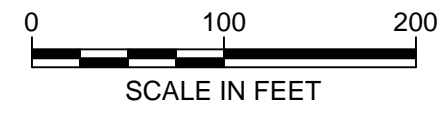
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LOCATION: ASHIPUN, WISCONSIN			
	CHECKED	MAM	FIGURE: 5
	DRAFTED	HJW	
	PROJECT	117-7413001	
	DATE	6/20/16	



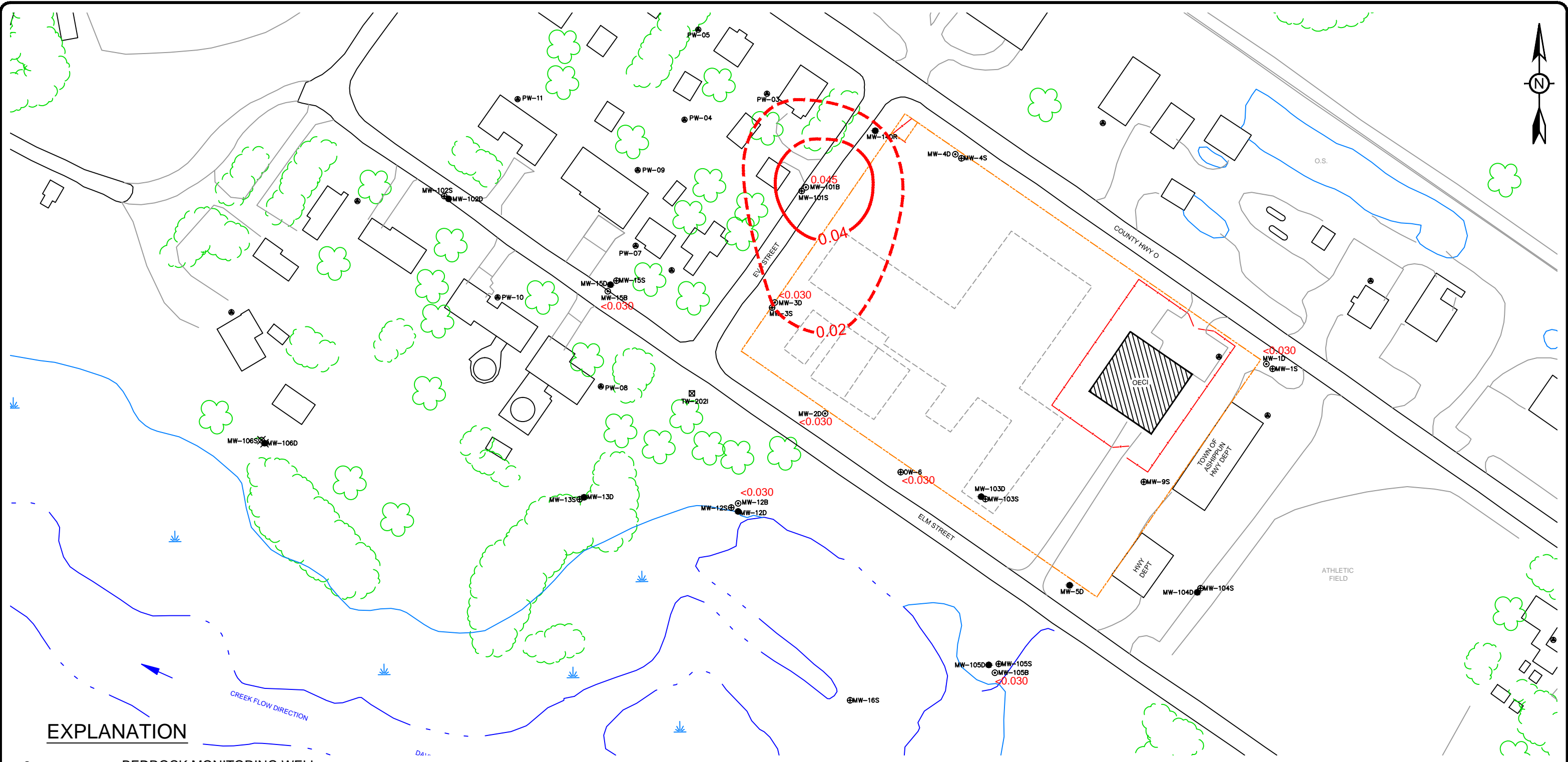
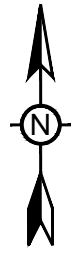
EXPLANATION

- ⊙MW-105B BEDROCK MONITORING WELL
- MW-105D DEEP UNCONSOLIDATED MONITORING WELL
- ⊕MW-105S SHALLOW UNCONSOLIDATED MONITORING WELL
- ⊙PW-11 RESIDENTIAL WELL
- ⊗MW-106D DEEP UNCONSOLIDATED SENTINEL WELL
- ⊗MW-106S SHALLOW UNCONSOLIDATED SENTINEL WELL
- ⊠TW-2021 TEMPORARY WELL
- FORMER OECI SITE BOUNDARY
- - - - - FENCED AREA

50 TCE CONCENTRATION (ug/L)
 50 TCE ISOCONCENTRATION CONTOUR (ug/L)
 DASHED WHERE INFERRED



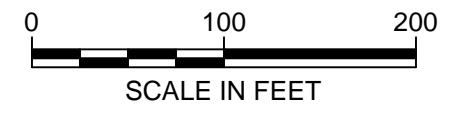
TITLE: OCONOMOWOC ELECTROPLATING COMPANY, INC. MAY 2016 SAMPLING EVENT MID-DEPTH MONITORING WELLS TCE ISOCONCENTRATION MAP		
LOCATION: ASHIPUN, WISCONSIN		
	CHECKED	MAM
	DRAFTED	HJW
	PROJECT	117-7413001
DATE	6/20/16	FIGURE: 6



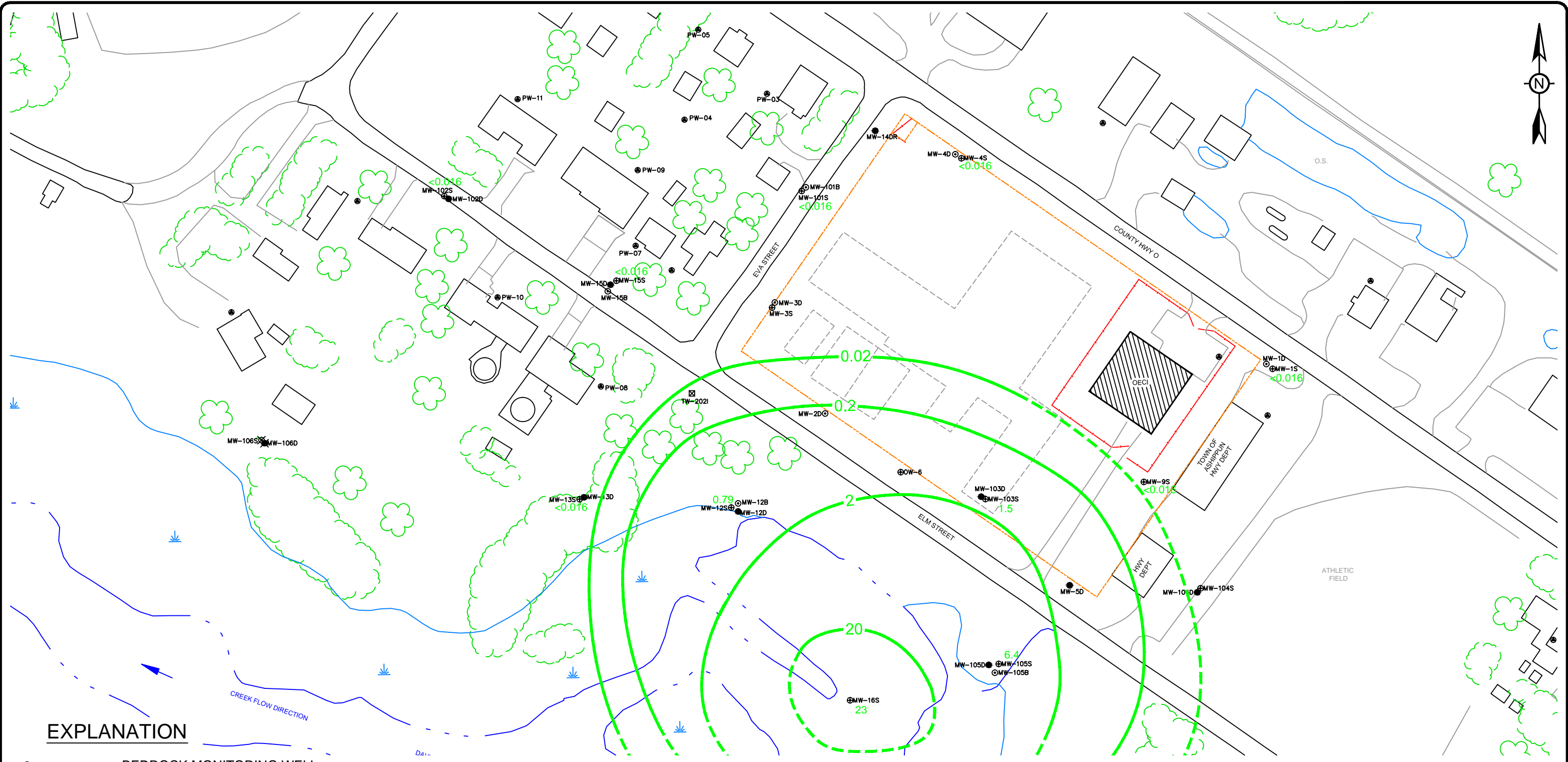
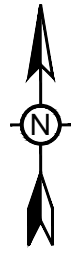
EXPLANATION

- ⊙MW-105B BEDROCK MONITORING WELL
- MW-105D DEEP UNCONSOLIDATED MONITORING WELL
- ⊕MW-105S SHALLOW UNCONSOLIDATED MONITORING WELL
- ⊙PW-11 RESIDENTIAL WELL
- ⊗MW-106D DEEP UNCONSOLIDATED SENTINEL WELL
- ⊗MW-106S SHALLOW UNCONSOLIDATED SENTINEL WELL
- ⊠TW-2021 TEMPORARY WELL
- FORMER OECI SITE BOUNDARY
- - - - - FENCED AREA

0.047 TCE CONCENTRATION (ug/L)
 — 0.04 — TCE ISOCONCENTRATION CONTOUR (ug/L)
 - - - - - DASHED WHERE INFERRED



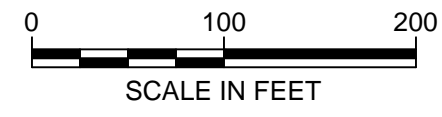
TITLE: OCONOMOWOC ELECTROPLATING COMPANY, INC. MAY 2016 SAMPLING EVENT BEDROCK MONITORING WELLS TCE ISOCONCENTRATION MAP		
LOCATION: ASHIPGUN, WISCONSIN		
	CHECKED	MAM
	DRAFTED	HJW
	PROJECT	117-7413001
DATE	6/20/16	FIGURE: 7



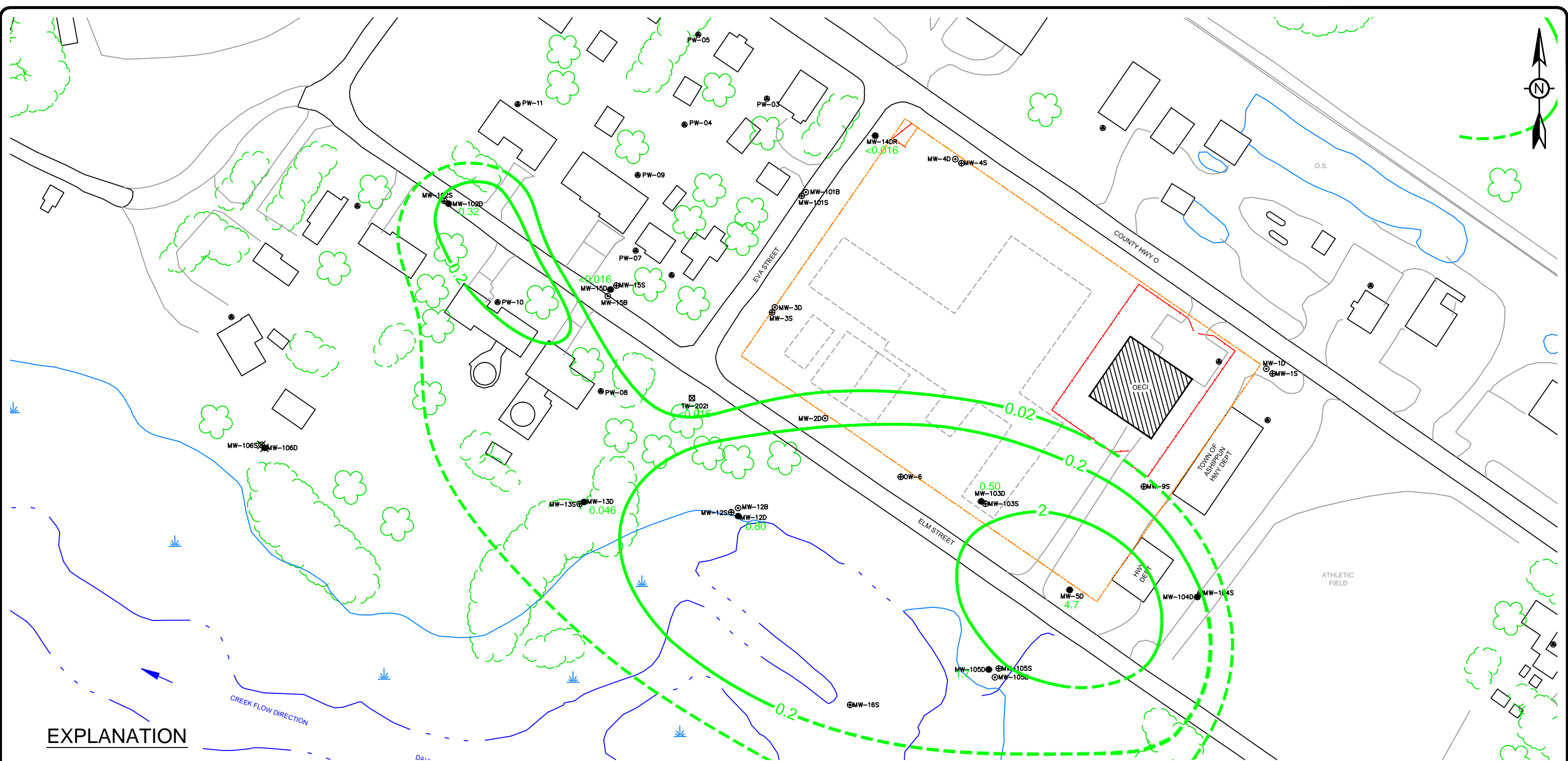
EXPLANATION

- ⊙MW-105B BEDROCK MONITORING WELL
- MW-105D DEEP UNCONSOLIDATED MONITORING WELL
- ⊕MW-105S SHALLOW UNCONSOLIDATED MONITORING WELL
- PW-11 RESIDENTIAL WELL
- ⊙MW-106D DEEP UNCONSOLIDATED SENTINEL WELL
- ⊕MW-106S SHALLOW UNCONSOLIDATED SENTINEL WELL
- ⊠TW-2021 TEMPORARY WELL
- FORMER OECI SITE BOUNDARY
- - - - - FENCED AREA

28
— 2.0 —
VINYL CHLORIDE CONCENTRATION (ug/L)
VINYL CHLORIDE ISOCONCENTRATION CONTOUR (ug/L)
DASHED WHERE INFERRED



TITLE: OCONOMOWOC ELECTROPLATING COMPANY, INC. MAY 2016 SAMPLING EVENT SHALLOW-DEPTH MONITORING WELLS VINYL CHLORIDE ISOCONCENTRATION MAP			
LOCATION: ASHIPGUN, WISCONSIN			
	CHECKED	MAM	FIGURE: 8
	DRAFTED	HJW	
	PROJECT	117-7413001	
	DATE	6/20/16	

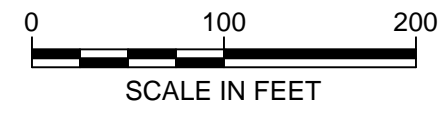


EXPLANATION

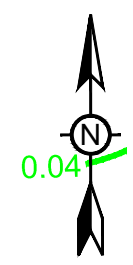
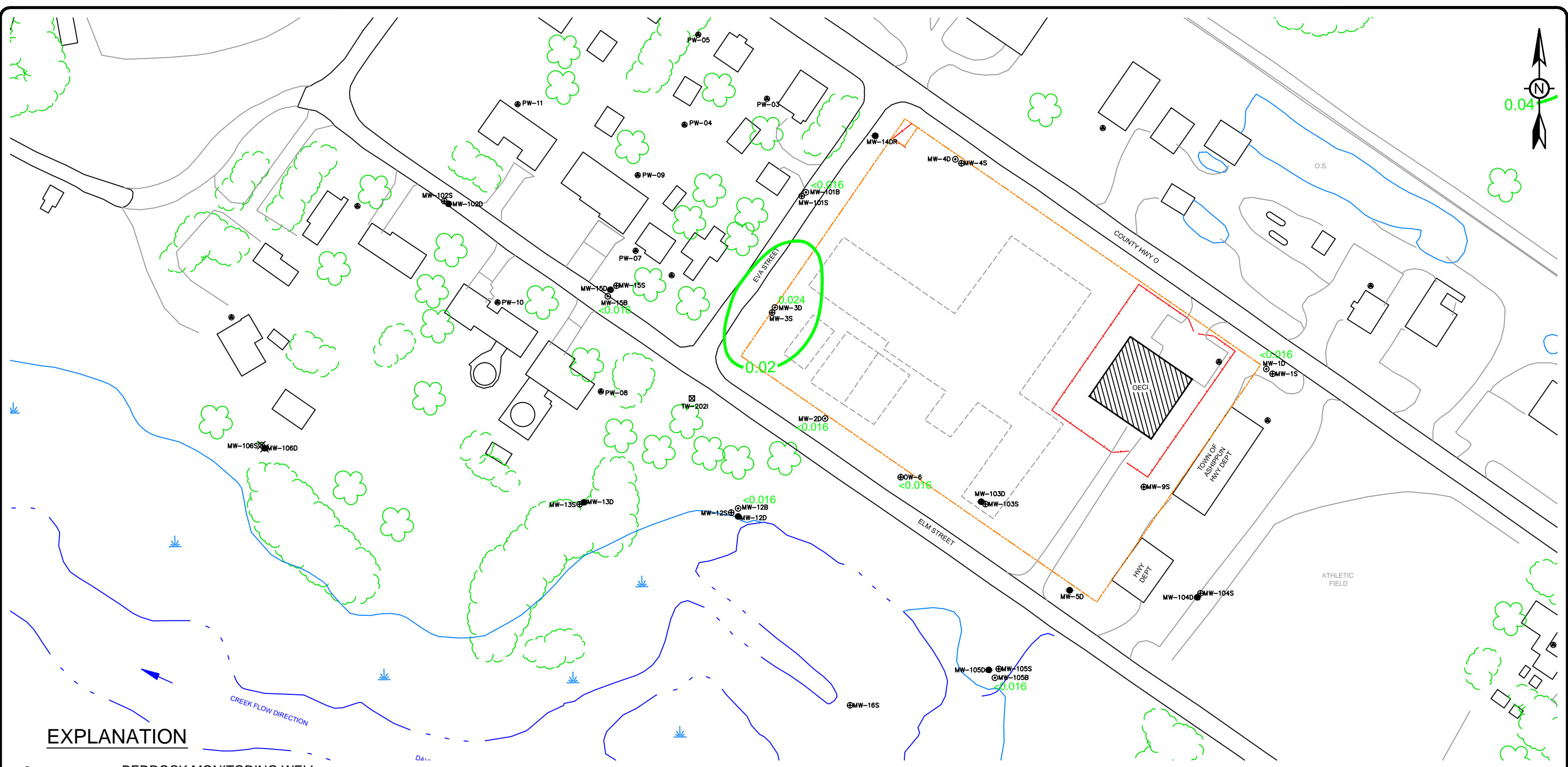
- ⊙MW-105B BEDROCK MONITORING WELL
- MW-105D DEEP UNCONSOLIDATED MONITORING WELL
- ⊕MW-105S SHALLOW UNCONSOLIDATED MONITORING WELL
- ⊙PW-11 RESIDENTIAL WELL
- ⊗MW-106D DEEP UNCONSOLIDATED SENTINEL WELL
- ⊗MW-106S SHALLOW UNCONSOLIDATED SENTINEL WELL
- ⊠TW-2021 TEMPORARY WELL
- FORMER OECI SITE BOUNDARY
- - - - - FENCED AREA

4.3
 2.0
 0.2
 0.50
 0.016
 0.02
 0.046
 0.80
 4.7

VINYL CHLORIDE CONCENTRATION (ug/L)
 VINYL CHLORIDE ISOCONCENTRATION CONTOUR (ug/L)
 DASHED WHERE INFERRED



TITLE: OCONOMOWOC ELECTROPLATING COMPANY, INC. MAY 2016 SAMPLING EVENT MID-DEPTH MONITORING WELLS VINYL CHLORIDE ISOCONCENTRATION MAP			
LOCATION: ASHIPUN, WISCONSIN			
	CHECKED	MAM	FIGURE: 9
	DRAFTED	HJW	
	PROJECT	117-7413001	
DATE	6/20/16		



EXPLANATION

- ⊙MW-105B BEDROCK MONITORING WELL
- MW-105D DEEP UNCONSOLIDATED MONITORING WELL
- ⊕MW-105S SHALLOW UNCONSOLIDATED MONITORING WELL
- ⊙PW-11 RESIDENTIAL WELL
- ⊗MW-106D DEEP UNCONSOLIDATED SENTINEL WELL
- ⊗MW-106S SHALLOW UNCONSOLIDATED SENTINEL WELL
- ⊠TW-2021 TEMPORARY WELL
- FORMER OECI SITE BOUNDARY
- FENCED AREA

0.076
 ——— 0.04 ———
 DASHED WHERE INFERRED

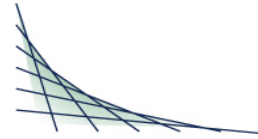
VINYL CHLORIDE CONCENTRATION (ug/L)
 VINYL CHLORIDE ISOCONCENTRATION CONTOUR (ug/L)



TITLE: OCONOMOWOC ELECTROPLATING COMPANY, INC. MAY 2016 SAMPLING EVENT BEDROCK MONITORING WELLS VINYL CHLORIDE ISOCONCENTRATION MAP		
LOCATION: ASHIPUN, WISCONSIN		
	CHECKED	MAM
	DRAFTED	HJW
	PROJECT	117-7413001
DATE	6/20/16	FIGURE: 10

APPENDIX C

LABORATORY ANALYTICAL REPORTS



ANALYTICAL REPORT

This report at a minimum contains the following information:

- Analytical Report of Test Results
- Description of QC Qualifiers
- Chain of Custody (copy)
- Quality Control Summary
- Case Narrative (if applicable)
- Correspondence with Client (if applicable)

This report has been specifically prepared to satisfy project or program requirements. These results are in compliance with NELAC requirements for parameters where accreditation is required or available, unless otherwise noted in the case narrative.



ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase:
 Project #: 117-7413001.01
 Folder #: 123362
 Purchase Order #:
 Contract #: 2747

Page 1 of 5
 Arrival Temperature: 4.9
 Report Date: 11/30/2016
 Date Received: 11/02/2016
 Reprint Date: 11/30/2016

CT LAB#: 798927 Sample Description: PW-08

DNR License/Well #: 4189/055 Sampled: 10/31/2016 1420

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Organic Results										
1,1,1,2-Tetrachloroethane	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 20:09	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.050	ug/L	0.050	0.17	1	U		11/09/2016 20:09	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.017	ug/L	0.017	0.057	1	U		11/09/2016 20:09	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.050	ug/L	0.050	0.16	1	U		11/09/2016 20:09	RLD	EPA 8260C
1,1-Dichloroethane	<0.060	ug/L	0.060	0.19	1	U		11/09/2016 20:09	RLD	EPA 8260C
1,1-Dichloroethene	<0.060	ug/L	0.060	0.20	1	U		11/09/2016 20:09	RLD	EPA 8260C
1,1-Dichloropropene	<0.060	ug/L	0.060	0.19	1	U		11/09/2016 20:09	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 20:09	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.040	ug/L	0.040	0.14	1	U		11/09/2016 20:09	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.040	ug/L	0.040	0.12	1	U		11/09/2016 20:09	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.040	ug/L	0.040	0.12	1	U		11/09/2016 20:09	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.090	ug/L	0.090	0.29	1	U		11/09/2016 20:09	RLD	EPA 8260C
1,2-Dibromoethane	<0.070	ug/L	0.070	0.23	1	U		11/09/2016 20:09	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 20:09	RLD	EPA 8260C
1,2-Dichloroethane	<0.050	ug/L	0.050	0.18	1	U		11/09/2016 20:09	RLD	EPA 8260C
1,2-Dichloropropane	<0.070	ug/L	0.070	0.23	1	U		11/09/2016 20:09	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

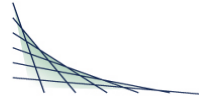
CT LAB#: 798927 Sample Description:PW-08

DNR License/Well #: 4189/055

Sampled: 10/31/2016 1420

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,3,5-Trimethylbenzene	<0.050	ug/L	0.050	0.16	1	U		11/09/2016 20:09	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 20:09	RLD	EPA 8260C
1,3-Dichloropropane	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 20:09	RLD	EPA 8260C
1,4-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 20:09	RLD	EPA 8260C
2,2-Dichloropropane	<0.050	ug/L	0.050	0.15	1	U		11/09/2016 20:09	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.5	1	U		11/09/2016 20:09	RLD	EPA 8260C
2-Chlorotoluene	<0.030	ug/L	0.030	0.11	1	U		11/09/2016 20:09	RLD	EPA 8260C
2-Hexanone	<0.24	ug/L	0.24	0.81	1	U		11/09/2016 20:09	RLD	EPA 8260C
4-Chlorotoluene	<0.040	ug/L	0.040	0.12	1	U		11/09/2016 20:09	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.24	ug/L	0.24	0.82	1	U		11/09/2016 20:09	RLD	EPA 8260C
Acetone	<0.30	ug/L	0.30	1.0	1	U		11/09/2016 20:09	RLD	EPA 8260C
Benzene	<0.018	ug/L	0.018	0.059	1	U		11/09/2016 20:09	RLD	EPA 8260C
Bromobenzene	<0.040	ug/L	0.040	0.15	1	U		11/09/2016 20:09	RLD	EPA 8260C
Bromochloromethane	<0.030	ug/L	0.030	0.099	1	U		11/09/2016 20:09	RLD	EPA 8260C
Bromodichloromethane	<0.016	ug/L	0.016	0.054	1	U		11/09/2016 20:09	RLD	EPA 8260C
Bromoform	<0.040	ug/L	0.040	0.12	1	U		11/09/2016 20:09	RLD	EPA 8260C
Bromomethane	<0.080	ug/L	0.080	0.28	1	U Z		11/09/2016 20:09	RLD	EPA 8260C
Carbon disulfide	<0.070	ug/L	0.070	0.25	1	U		11/09/2016 20:09	RLD	EPA 8260C
Carbon tetrachloride	<0.050	ug/L	0.050	0.18	1	U		11/09/2016 20:09	RLD	EPA 8260C
Chlorobenzene	<0.040	ug/L	0.040	0.15	1	U		11/09/2016 20:09	RLD	EPA 8260C
Chloroethane	<0.070	ug/L	0.070	0.23	1	U		11/09/2016 20:09	RLD	EPA 8260C
Chloroform	<0.030	ug/L	0.030	0.11	1	U		11/09/2016 20:09	RLD	EPA 8260C
Chloromethane	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 20:09	RLD	EPA 8260C
cis-1,2-Dichloroethene	2.3	ug/L	0.070	0.23	1			11/09/2016 20:09	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.011	ug/L	0.011	0.038	1	U		11/09/2016 20:09	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1	U		11/09/2016 20:09	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis



CT LAB#: 798927 Sample Description:PW-08

DNR License/Well #: 4189/055

Sampled: 10/31/2016 1420

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Dibromomethane	<0.050	ug/L	0.050	0.17	1	U		11/09/2016 20:09	RLD	EPA 8260C
Dichlorodifluoromethane	<0.060	ug/L	0.060	0.19	1	U		11/09/2016 20:09	RLD	EPA 8260C
Diisopropyl ether	<0.040	ug/L	0.040	0.14	1	U		11/09/2016 20:09	RLD	EPA 8260C
Ethylbenzene	<0.040	ug/L	0.040	0.15	1	U		11/09/2016 20:09	RLD	EPA 8260C
Hexachlorobutadiene	<0.050	ug/L	0.050	0.16	1	U		11/09/2016 20:09	RLD	EPA 8260C
Isopropylbenzene	<0.040	ug/L	0.040	0.12	1	U		11/09/2016 20:09	RLD	EPA 8260C
m & p-Xylene	<0.070	ug/L	0.070	0.23	1	U		11/09/2016 20:09	RLD	EPA 8260C
Methyl tert-butyl ether	0.67	ug/L	0.040	0.12	1			11/09/2016 20:09	RLD	EPA 8260C
Methylene chloride	<0.050	ug/L	0.050	0.16	1	U		11/09/2016 20:09	RLD	EPA 8260C
n-Butylbenzene	<0.030	ug/L	0.030	0.11	1	U		11/09/2016 20:09	RLD	EPA 8260C
n-Propylbenzene	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 20:09	RLD	EPA 8260C
Naphthalene	<0.030	ug/L	0.030	0.10	1	U		11/09/2016 20:09	RLD	EPA 8260C
o-Xylene	<0.040	ug/L	0.040	0.14	1	U		11/09/2016 20:09	RLD	EPA 8260C
p-Isopropyltoluene	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 20:09	RLD	EPA 8260C
sec-Butylbenzene	<0.050	ug/L	0.050	0.16	1	U		11/09/2016 20:09	RLD	EPA 8260C
Styrene	<0.030	ug/L	0.030	0.11	1	U		11/09/2016 20:09	RLD	EPA 8260C
tert-Butylbenzene	<0.040	ug/L	0.040	0.14	1	U		11/09/2016 20:09	RLD	EPA 8260C
Tetrachloroethene	<0.050	ug/L	0.050	0.18	1	U		11/09/2016 20:09	RLD	EPA 8260C
Tetrahydrofuran	<0.40	ug/L	0.40	1.5	1	U		11/09/2016 20:09	RLD	EPA 8260C
Toluene	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 20:09	RLD	EPA 8260C
trans-1,2-Dichloroethene	0.12	ug/L	0.040	0.14	1	J		11/09/2016 20:09	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.019	ug/L	0.019	0.063	1	U		11/09/2016 20:09	RLD	EPA 8260C
Trichloroethene	0.11	ug/L	0.050	0.17	1	J		11/09/2016 20:09	RLD	EPA 8260C
Trichlorofluoromethane	<0.090	ug/L	0.090	0.14	1	U		11/09/2016 20:09	RLD	EPA 8260C
Vinyl acetate	<0.22	ug/L	0.22	0.73	1	U		11/09/2016 20:09	RLD	EPA 8260C
Vinyl chloride	<0.019	ug/L	0.019	0.064	1	U		11/09/2016 20:09	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 798927 Sample Description:PW-08

DNR License/Well #: 4189/055

Sampled: 10/31/2016 1420

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,4-Dioxane	<7.0	ug/L	7.0	23	1	U M		11/09/2016 20:09	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications
Kansas NELAP ID# E-10368
Kentucky ID# 0023
ISO/IEC 17025-2005 A2LA Cert # 3806.01
North Carolina ID# 674
Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID E871111, Expires Annually
Louisiana ID # 115843
Virginia ID# 7608
Illinois NELAP ID # 002413
Wisconsin (WOSB) ID# WI-5499-WBE
Maryland ID# 344

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase:
 Project #: 117-7413001.01
 Folder #: 123362
 Purchase Order #:
 Contract #: 2747

Page 1 of 5
 Arrival Temperature: 4.9
 Report Date: 11/30/2016
 Date Received: 11/02/2016
 Reprint Date: 11/30/2016

CT LAB#: 798928	Sample Description: PW-10	DNR License/Well #: 4189/057	Sampled: 10/31/2016 1505
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Organic Results										
1,1,1,2-Tetrachloroethane	<0.040	ug/L	0.040	0.13	1	U	11/09/2016 20:38	RLD	EPA 8260C	
1,1,1-Trichloroethane	<0.050	ug/L	0.050	0.17	1	U	11/09/2016 20:38	RLD	EPA 8260C	
1,1,2,2-Tetrachloroethane	<0.017	ug/L	0.017	0.057	1	U	11/09/2016 20:38	RLD	EPA 8260C	
1,1,2-Trichloroethane	<0.050	ug/L	0.050	0.16	1	U	11/09/2016 20:38	RLD	EPA 8260C	
1,1-Dichloroethane	<0.060	ug/L	0.060	0.19	1	U	11/09/2016 20:38	RLD	EPA 8260C	
1,1-Dichloroethene	<0.060	ug/L	0.060	0.20	1	U	11/09/2016 20:38	RLD	EPA 8260C	
1,1-Dichloropropene	<0.060	ug/L	0.060	0.19	1	U	11/09/2016 20:38	RLD	EPA 8260C	
1,2,3-Trichlorobenzene	<0.040	ug/L	0.040	0.13	1	U	11/09/2016 20:38	RLD	EPA 8260C	
1,2,3-Trichloropropane	<0.040	ug/L	0.040	0.14	1	U	11/09/2016 20:38	RLD	EPA 8260C	
1,2,4-Trichlorobenzene	<0.040	ug/L	0.040	0.12	1	U	11/09/2016 20:38	RLD	EPA 8260C	
1,2,4-Trimethylbenzene	<0.040	ug/L	0.040	0.12	1	U	11/09/2016 20:38	RLD	EPA 8260C	
1,2-Dibromo-3-chloropropane	<0.090	ug/L	0.090	0.29	1	U	11/09/2016 20:38	RLD	EPA 8260C	
1,2-Dibromoethane	<0.070	ug/L	0.070	0.23	1	U	11/09/2016 20:38	RLD	EPA 8260C	
1,2-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U	11/09/2016 20:38	RLD	EPA 8260C	
1,2-Dichloroethane	<0.050	ug/L	0.050	0.18	1	U	11/09/2016 20:38	RLD	EPA 8260C	
1,2-Dichloropropane	<0.070	ug/L	0.070	0.23	1	U	11/09/2016 20:38	RLD	EPA 8260C	

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 798928 Sample Description:PW-10

DNR License/Well #: 4189/057

Sampled: 10/31/2016 1505

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,3,5-Trimethylbenzene	<0.050	ug/L	0.050	0.16	1	U		11/09/2016 20:38	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 20:38	RLD	EPA 8260C
1,3-Dichloropropane	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 20:38	RLD	EPA 8260C
1,4-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 20:38	RLD	EPA 8260C
2,2-Dichloropropane	<0.050	ug/L	0.050	0.15	1	U		11/09/2016 20:38	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.5	1	U		11/09/2016 20:38	RLD	EPA 8260C
2-Chlorotoluene	<0.030	ug/L	0.030	0.11	1	U		11/09/2016 20:38	RLD	EPA 8260C
2-Hexanone	<0.24	ug/L	0.24	0.81	1	U		11/09/2016 20:38	RLD	EPA 8260C
4-Chlorotoluene	<0.040	ug/L	0.040	0.12	1	U		11/09/2016 20:38	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.24	ug/L	0.24	0.82	1	U		11/09/2016 20:38	RLD	EPA 8260C
Acetone	<0.30	ug/L	0.30	1.0	1	U		11/09/2016 20:38	RLD	EPA 8260C
Benzene	<0.018	ug/L	0.018	0.059	1	U		11/09/2016 20:38	RLD	EPA 8260C
Bromobenzene	<0.040	ug/L	0.040	0.15	1	U		11/09/2016 20:38	RLD	EPA 8260C
Bromochloromethane	<0.030	ug/L	0.030	0.099	1	U		11/09/2016 20:38	RLD	EPA 8260C
Bromodichloromethane	<0.016	ug/L	0.016	0.054	1	U		11/09/2016 20:38	RLD	EPA 8260C
Bromoform	<0.040	ug/L	0.040	0.12	1	U		11/09/2016 20:38	RLD	EPA 8260C
Bromomethane	<0.080	ug/L	0.080	0.28	1	U Z		11/09/2016 20:38	RLD	EPA 8260C
Carbon disulfide	<0.070	ug/L	0.070	0.25	1	U		11/09/2016 20:38	RLD	EPA 8260C
Carbon tetrachloride	<0.050	ug/L	0.050	0.18	1	U		11/09/2016 20:38	RLD	EPA 8260C
Chlorobenzene	<0.040	ug/L	0.040	0.15	1	U		11/09/2016 20:38	RLD	EPA 8260C
Chloroethane	<0.070	ug/L	0.070	0.23	1	U		11/09/2016 20:38	RLD	EPA 8260C
Chloroform	<0.030	ug/L	0.030	0.11	1	U		11/09/2016 20:38	RLD	EPA 8260C
Chloromethane	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 20:38	RLD	EPA 8260C
cis-1,2-Dichloroethene	0.11	ug/L	0.070	0.23	1	J		11/09/2016 20:38	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.011	ug/L	0.011	0.038	1	U		11/09/2016 20:38	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1	U		11/09/2016 20:38	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 798928 Sample Description:PW-10

DNR License/Well #: 4189/057

Sampled: 10/31/2016 1505

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Dibromomethane	<0.050	ug/L	0.050	0.17	1	U		11/09/2016 20:38	RLD	EPA 8260C
Dichlorodifluoromethane	<0.060	ug/L	0.060	0.19	1	U		11/09/2016 20:38	RLD	EPA 8260C
Diisopropyl ether	<0.040	ug/L	0.040	0.14	1	U		11/09/2016 20:38	RLD	EPA 8260C
Ethylbenzene	<0.040	ug/L	0.040	0.15	1	U		11/09/2016 20:38	RLD	EPA 8260C
Hexachlorobutadiene	<0.050	ug/L	0.050	0.16	1	U		11/09/2016 20:38	RLD	EPA 8260C
Isopropylbenzene	<0.040	ug/L	0.040	0.12	1	U		11/09/2016 20:38	RLD	EPA 8260C
m & p-Xylene	<0.070	ug/L	0.070	0.23	1	U		11/09/2016 20:38	RLD	EPA 8260C
Methyl tert-butyl ether	0.48	ug/L	0.040	0.12	1			11/09/2016 20:38	RLD	EPA 8260C
Methylene chloride	<0.050	ug/L	0.050	0.16	1	U		11/09/2016 20:38	RLD	EPA 8260C
n-Butylbenzene	<0.030	ug/L	0.030	0.11	1	U		11/09/2016 20:38	RLD	EPA 8260C
n-Propylbenzene	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 20:38	RLD	EPA 8260C
Naphthalene	<0.030	ug/L	0.030	0.10	1	U		11/09/2016 20:38	RLD	EPA 8260C
o-Xylene	<0.040	ug/L	0.040	0.14	1	U		11/09/2016 20:38	RLD	EPA 8260C
p-Isopropyltoluene	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 20:38	RLD	EPA 8260C
sec-Butylbenzene	<0.050	ug/L	0.050	0.16	1	U		11/09/2016 20:38	RLD	EPA 8260C
Styrene	<0.030	ug/L	0.030	0.11	1	U		11/09/2016 20:38	RLD	EPA 8260C
tert-Butylbenzene	<0.040	ug/L	0.040	0.14	1	U		11/09/2016 20:38	RLD	EPA 8260C
Tetrachloroethene	<0.050	ug/L	0.050	0.18	1	U		11/09/2016 20:38	RLD	EPA 8260C
Tetrahydrofuran	<0.40	ug/L	0.40	1.5	1	U		11/09/2016 20:38	RLD	EPA 8260C
Toluene	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 20:38	RLD	EPA 8260C
trans-1,2-Dichloroethene	<0.040	ug/L	0.040	0.14	1	U		11/09/2016 20:38	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.019	ug/L	0.019	0.063	1	U		11/09/2016 20:38	RLD	EPA 8260C
Trichloroethene	<0.050	ug/L	0.050	0.17	1	U		11/09/2016 20:38	RLD	EPA 8260C
Trichlorofluoromethane	<0.090	ug/L	0.090	0.14	1	U		11/09/2016 20:38	RLD	EPA 8260C
Vinyl acetate	<0.22	ug/L	0.22	0.73	1	U		11/09/2016 20:38	RLD	EPA 8260C
Vinyl chloride	<0.019	ug/L	0.019	0.064	1	U		11/09/2016 20:38	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 798928	Sample Description:PW-10	DNR License/Well #: 4189/057	Sampled: 10/31/2016 1505
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,4-Dioxane	<7.0	ug/L	7.0	23	1	U		11/09/2016 20:38	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications

Kansas NELAP ID# E-10368
Kentucky ID# 0023
ISO/IEC 17025-2005 A2LA Cert # 3806.01
North Carolina ID# 674
Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID E871111, Expires Annually
Louisiana ID # 115843
Virginia ID# 7608
Illinois NELAP ID # 002413
Wisconsin (WOSB) ID# WI-5499-WBE
Maryland ID# 344

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase:
 Project #: 117-7413001.01
 Folder #: 123362
 Purchase Order #:
 Contract #: 2747

Page 1 of 5
 Arrival Temperature: 4.9
 Report Date: 11/30/2016
 Date Received: 11/02/2016
 Reprint Date: 11/30/2016

CT LAB#: 798929 Sample Description: PW-07

DNR License/Well #: 4189/054

Sampled: 10/31/2016 1540

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Organic Results										
1,1,1,2-Tetrachloroethane	<0.040	ug/L	0.040	0.13	1	U	11/09/2016 21:07	21:07	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.050	ug/L	0.050	0.17	1	U	11/09/2016 21:07	21:07	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.017	ug/L	0.017	0.057	1	U	11/09/2016 21:07	21:07	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.050	ug/L	0.050	0.16	1	U	11/09/2016 21:07	21:07	RLD	EPA 8260C
1,1-Dichloroethane	<0.060	ug/L	0.060	0.19	1	U	11/09/2016 21:07	21:07	RLD	EPA 8260C
1,1-Dichloroethene	<0.060	ug/L	0.060	0.20	1	U	11/09/2016 21:07	21:07	RLD	EPA 8260C
1,1-Dichloropropene	<0.060	ug/L	0.060	0.19	1	U	11/09/2016 21:07	21:07	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.040	ug/L	0.040	0.13	1	U	11/09/2016 21:07	21:07	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.040	ug/L	0.040	0.14	1	U	11/09/2016 21:07	21:07	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.040	ug/L	0.040	0.12	1	U	11/09/2016 21:07	21:07	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.040	ug/L	0.040	0.12	1	U	11/09/2016 21:07	21:07	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.090	ug/L	0.090	0.29	1	U	11/09/2016 21:07	21:07	RLD	EPA 8260C
1,2-Dibromoethane	<0.070	ug/L	0.070	0.23	1	U	11/09/2016 21:07	21:07	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U	11/09/2016 21:07	21:07	RLD	EPA 8260C
1,2-Dichloroethane	<0.050	ug/L	0.050	0.18	1	U	11/09/2016 21:07	21:07	RLD	EPA 8260C
1,2-Dichloropropane	<0.070	ug/L	0.070	0.23	1	U	11/09/2016 21:07	21:07	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 798929 Sample Description:PW-07

DNR License/Well #: 4189/054

Sampled: 10/31/2016 1540

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,3,5-Trimethylbenzene	<0.050	ug/L	0.050	0.16	1	U		11/09/2016 21:07	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 21:07	RLD	EPA 8260C
1,3-Dichloropropane	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 21:07	RLD	EPA 8260C
1,4-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 21:07	RLD	EPA 8260C
2,2-Dichloropropane	<0.050	ug/L	0.050	0.15	1	U		11/09/2016 21:07	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.5	1	U		11/09/2016 21:07	RLD	EPA 8260C
2-Chlorotoluene	<0.030	ug/L	0.030	0.11	1	U		11/09/2016 21:07	RLD	EPA 8260C
2-Hexanone	<0.24	ug/L	0.24	0.81	1	U		11/09/2016 21:07	RLD	EPA 8260C
4-Chlorotoluene	<0.040	ug/L	0.040	0.12	1	U		11/09/2016 21:07	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.24	ug/L	0.24	0.82	1	U		11/09/2016 21:07	RLD	EPA 8260C
Acetone	<0.30	ug/L	0.30	1.0	1	U		11/09/2016 21:07	RLD	EPA 8260C
Benzene	<0.018	ug/L	0.018	0.059	1	U		11/09/2016 21:07	RLD	EPA 8260C
Bromobenzene	<0.040	ug/L	0.040	0.15	1	U		11/09/2016 21:07	RLD	EPA 8260C
Bromochloromethane	<0.030	ug/L	0.030	0.099	1	U		11/09/2016 21:07	RLD	EPA 8260C
Bromodichloromethane	<0.016	ug/L	0.016	0.054	1	U		11/09/2016 21:07	RLD	EPA 8260C
Bromoform	<0.040	ug/L	0.040	0.12	1	U		11/09/2016 21:07	RLD	EPA 8260C
Bromomethane	<0.080	ug/L	0.080	0.28	1	U Z		11/09/2016 21:07	RLD	EPA 8260C
Carbon disulfide	<0.070	ug/L	0.070	0.25	1	U		11/09/2016 21:07	RLD	EPA 8260C
Carbon tetrachloride	<0.050	ug/L	0.050	0.18	1	U		11/09/2016 21:07	RLD	EPA 8260C
Chlorobenzene	<0.040	ug/L	0.040	0.15	1	U		11/09/2016 21:07	RLD	EPA 8260C
Chloroethane	<0.070	ug/L	0.070	0.23	1	U		11/09/2016 21:07	RLD	EPA 8260C
Chloroform	<0.030	ug/L	0.030	0.11	1	U		11/09/2016 21:07	RLD	EPA 8260C
Chloromethane	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 21:07	RLD	EPA 8260C
cis-1,2-Dichloroethene	4.3	ug/L	0.070	0.23	1			11/09/2016 21:07	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.011	ug/L	0.011	0.038	1	U		11/09/2016 21:07	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1	U		11/09/2016 21:07	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 798929 Sample Description:PW-07

DNR License/Well #: 4189/054

Sampled: 10/31/2016 1540

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Dibromomethane	<0.050	ug/L	0.050	0.17	1	U		11/09/2016 21:07	RLD	EPA 8260C
Dichlorodifluoromethane	<0.060	ug/L	0.060	0.19	1	U		11/09/2016 21:07	RLD	EPA 8260C
Diisopropyl ether	<0.040	ug/L	0.040	0.14	1	U		11/09/2016 21:07	RLD	EPA 8260C
Ethylbenzene	<0.040	ug/L	0.040	0.15	1	U		11/09/2016 21:07	RLD	EPA 8260C
Hexachlorobutadiene	<0.050	ug/L	0.050	0.16	1	U		11/09/2016 21:07	RLD	EPA 8260C
Isopropylbenzene	<0.040	ug/L	0.040	0.12	1	U		11/09/2016 21:07	RLD	EPA 8260C
m & p-Xylene	<0.070	ug/L	0.070	0.23	1	U		11/09/2016 21:07	RLD	EPA 8260C
Methyl tert-butyl ether	0.63	ug/L	0.040	0.12	1			11/09/2016 21:07	RLD	EPA 8260C
Methylene chloride	<0.050	ug/L	0.050	0.16	1	U		11/09/2016 21:07	RLD	EPA 8260C
n-Butylbenzene	<0.030	ug/L	0.030	0.11	1	U		11/09/2016 21:07	RLD	EPA 8260C
n-Propylbenzene	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 21:07	RLD	EPA 8260C
Naphthalene	<0.030	ug/L	0.030	0.10	1	U		11/09/2016 21:07	RLD	EPA 8260C
o-Xylene	<0.040	ug/L	0.040	0.14	1	U		11/09/2016 21:07	RLD	EPA 8260C
p-Isopropyltoluene	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 21:07	RLD	EPA 8260C
sec-Butylbenzene	<0.050	ug/L	0.050	0.16	1	U		11/09/2016 21:07	RLD	EPA 8260C
Styrene	<0.030	ug/L	0.030	0.11	1	U		11/09/2016 21:07	RLD	EPA 8260C
tert-Butylbenzene	<0.040	ug/L	0.040	0.14	1	U		11/09/2016 21:07	RLD	EPA 8260C
Tetrachloroethene	<0.050	ug/L	0.050	0.18	1	U		11/09/2016 21:07	RLD	EPA 8260C
Tetrahydrofuran	0.44	ug/L	0.40	1.5	1	J		11/09/2016 21:07	RLD	EPA 8260C
Toluene	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 21:07	RLD	EPA 8260C
trans-1,2-Dichloroethene	0.17	ug/L	0.040	0.14	1			11/09/2016 21:07	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.019	ug/L	0.019	0.063	1	U		11/09/2016 21:07	RLD	EPA 8260C
Trichloroethene	<0.050	ug/L	0.050	0.17	1	U		11/09/2016 21:07	RLD	EPA 8260C
Trichlorofluoromethane	<0.090	ug/L	0.090	0.14	1	U		11/09/2016 21:07	RLD	EPA 8260C
Vinyl acetate	<0.22	ug/L	0.22	0.73	1	U		11/09/2016 21:07	RLD	EPA 8260C
Vinyl chloride	0.041	ug/L	0.019	0.064	1	J		11/09/2016 21:07	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 798929 Sample Description:PW-07

DNR License/Well #: 4189/054

Sampled: 10/31/2016 1540

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,4-Dioxane	<7.0	ug/L	7.0	23	1	U		11/09/2016 21:07	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications
Kansas NELAP ID# E-10368
Kentucky ID# 0023
ISO/IEC 17025-2005 A2LA Cert # 3806.01
North Carolina ID# 674
Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID E871111, Expires Annually
Louisiana ID # 115843
Virginia ID# 7608
Illinois NELAP ID # 002413
Wisconsin (WOSB) ID# WI-5499-WBE
Maryland ID# 344

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase:
 Project #: 117-7413001.01
 Folder #: 123362
 Purchase Order #:
 Contract #: 2747

Page 1 of 5
 Arrival Temperature: 4.9
 Report Date: 11/30/2016
 Date Received: 11/02/2016
 Reprint Date: 11/30/2016

CT LAB#: 798943	Sample Description: MW-105B	DNR License/Well #: 4189/045	Sampled: 11/01/2016 1040
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Field Results										
Dissolved Oxygen (Field)	6.49	mg/L	N/A	N/A	1			11/01/2016 00:00	BMS	
Depth to Groundwater (Field)	2.91	Feet	N/A	N/A	1			11/01/2016 00:00	BMS	
OX/REDOX (Field)	-161	MV	N/A	N/A	1			11/01/2016 00:00	BMS	
Color (Field)	CLEAR		N/A	N/A	1			11/01/2016 00:00	BMS	FIELD
Conductivity (Field)	815	umhos/cm	N/A	N/A	1			11/01/2016 00:00	BMS	FIELD
Groundwater Elevation (Field)	845.99	Feet MSL	N/A	N/A	1			11/01/2016 00:00	BMS	FIELD
pH (Field)	7.58	S.U.	N/A	N/A	1			11/01/2016 00:00	BMS	FIELD
Temperature (Field)	6.90	Deg. C	N/A	N/A	1			11/01/2016 00:00	BMS	FIELD
Turbidity (Field)	CLEAR		N/A	N/A	1			11/01/2016 00:00	BMS	FIELD
Inorganic Results										
Alkalinity Total	400	mg/L	5.0	18	1			11/03/2016 15:55	LJS	EPA 310.2
Total Chloride	94	mg/L	0.70	2.4	1			11/02/2016 21:02	JJF	EPA 9056A
Total Sulfate	<1.0	mg/L	1.0	3.2	1	U		11/02/2016 21:02	JJF	EPA 9056A
Total Organic Carbon	1.1	mg/L	0.50	1.7	1	J		11/07/2016 15:36	JJF	EPA 9060A
Metals Results										

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

The depth to groundwater and groundwater elevation results listed above are from a previous sampling round and therefore incorrect.

CT LAB#: 798943 Sample Description:MW-105B

DNR License/Well #: 4189/045

Sampled: 11/01/2016 1040

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Total Iron	3.70	mg/L	0.034	0.11	1		11/08/2016 15:00	11/09/2016 20:15	NAH	EPA 6010C
Total Manganese	404	ug/L	3.4	11	1		11/08/2016 15:00	11/09/2016 20:15	NAH	EPA 6010C
Organic Results										
Acetylene	<0.23	ug/L	0.23	0.77	1	U	11/10/2016 09:00	11/10/2016 16:18	agk	Mod RSK 175
Ethane	0.44	ug/L	0.40	1.2	1	J	11/10/2016 09:00	11/10/2016 16:18	agk	Mod RSK 175
Ethene	<0.50	ug/L	0.50	1.8	1	U	11/10/2016 09:00	11/10/2016 16:18	agk	Mod RSK 175
Methane	410	ug/L	20	60	50		11/10/2016 09:00	11/10/2016 16:29	AGK	Mod RSK 175
1,1,1,2-Tetrachloroethane	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 21:36	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.050	ug/L	0.050	0.17	1	U		11/09/2016 21:36	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.017	ug/L	0.017	0.057	1	U		11/09/2016 21:36	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.050	ug/L	0.050	0.16	1	U		11/09/2016 21:36	RLD	EPA 8260C
1,1-Dichloroethane	<0.060	ug/L	0.060	0.19	1	U		11/09/2016 21:36	RLD	EPA 8260C
1,1-Dichloroethene	<0.060	ug/L	0.060	0.20	1	U		11/09/2016 21:36	RLD	EPA 8260C
1,1-Dichloropropene	<0.060	ug/L	0.060	0.19	1	U		11/09/2016 21:36	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 21:36	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.040	ug/L	0.040	0.14	1	U		11/09/2016 21:36	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.040	ug/L	0.040	0.12	1	U		11/09/2016 21:36	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.040	ug/L	0.040	0.12	1	U		11/09/2016 21:36	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.090	ug/L	0.090	0.29	1	U		11/09/2016 21:36	RLD	EPA 8260C
1,2-Dibromoethane	<0.070	ug/L	0.070	0.23	1	U		11/09/2016 21:36	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 21:36	RLD	EPA 8260C
1,2-Dichloroethane	<0.050	ug/L	0.050	0.18	1	U		11/09/2016 21:36	RLD	EPA 8260C
1,2-Dichloropropane	<0.070	ug/L	0.070	0.23	1	U		11/09/2016 21:36	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<0.050	ug/L	0.050	0.16	1	U		11/09/2016 21:36	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 21:36	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 798943 Sample Description:MW-105B

DNR License/Well #: 4189/045

Sampled: 11/01/2016 1040

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,3-Dichloropropane	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 21:36	RLD	EPA 8260C
1,4-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 21:36	RLD	EPA 8260C
2,2-Dichloropropane	<0.050	ug/L	0.050	0.15	1	U		11/09/2016 21:36	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.5	1	U		11/09/2016 21:36	RLD	EPA 8260C
2-Chlorotoluene	<0.030	ug/L	0.030	0.11	1	U		11/09/2016 21:36	RLD	EPA 8260C
2-Hexanone	<0.24	ug/L	0.24	0.81	1	U		11/09/2016 21:36	RLD	EPA 8260C
4-Chlorotoluene	<0.040	ug/L	0.040	0.12	1	U		11/09/2016 21:36	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.24	ug/L	0.24	0.82	1	U		11/09/2016 21:36	RLD	EPA 8260C
Acetone	<0.30	ug/L	0.30	1.0	1	U		11/09/2016 21:36	RLD	EPA 8260C
Benzene	0.019	ug/L	0.018	0.059	1	J		11/09/2016 21:36	RLD	EPA 8260C
Bromobenzene	<0.040	ug/L	0.040	0.15	1	U		11/09/2016 21:36	RLD	EPA 8260C
Bromochloromethane	<0.030	ug/L	0.030	0.099	1	U		11/09/2016 21:36	RLD	EPA 8260C
Bromodichloromethane	<0.016	ug/L	0.016	0.054	1	U		11/09/2016 21:36	RLD	EPA 8260C
Bromoform	<0.040	ug/L	0.040	0.12	1	U		11/09/2016 21:36	RLD	EPA 8260C
Bromomethane	<0.080	ug/L	0.080	0.28	1	U Z		11/09/2016 21:36	RLD	EPA 8260C
Carbon disulfide	0.072	ug/L	0.070	0.25	1	J		11/09/2016 21:36	RLD	EPA 8260C
Carbon tetrachloride	<0.050	ug/L	0.050	0.18	1	U		11/09/2016 21:36	RLD	EPA 8260C
Chlorobenzene	<0.040	ug/L	0.040	0.15	1	U		11/09/2016 21:36	RLD	EPA 8260C
Chloroethane	<0.070	ug/L	0.070	0.23	1	U		11/09/2016 21:36	RLD	EPA 8260C
Chloroform	<0.030	ug/L	0.030	0.11	1	U		11/09/2016 21:36	RLD	EPA 8260C
Chloromethane	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 21:36	RLD	EPA 8260C
cis-1,2-Dichloroethene	<0.070	ug/L	0.070	0.23	1	U		11/09/2016 21:36	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.011	ug/L	0.011	0.038	1	U		11/09/2016 21:36	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1	U		11/09/2016 21:36	RLD	EPA 8260C
Dibromomethane	<0.050	ug/L	0.050	0.17	1	U		11/09/2016 21:36	RLD	EPA 8260C
Dichlorodifluoromethane	<0.060	ug/L	0.060	0.19	1	U		11/09/2016 21:36	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 798943 Sample Description:MW-105B

DNR License/Well #: 4189/045

Sampled: 11/01/2016 1040

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Diisopropyl ether	<0.040	ug/L	0.040	0.14	1	U	11/09/2016 21:36	11/09/2016 21:36	RLD	EPA 8260C
Ethylbenzene	<0.040	ug/L	0.040	0.15	1	U	11/09/2016 21:36	11/09/2016 21:36	RLD	EPA 8260C
Hexachlorobutadiene	<0.050	ug/L	0.050	0.16	1	U	11/09/2016 21:36	11/09/2016 21:36	RLD	EPA 8260C
Isopropylbenzene	<0.040	ug/L	0.040	0.12	1	U	11/09/2016 21:36	11/09/2016 21:36	RLD	EPA 8260C
m & p-Xylene	<0.070	ug/L	0.070	0.23	1	U	11/09/2016 21:36	11/09/2016 21:36	RLD	EPA 8260C
Methyl tert-butyl ether	<0.040	ug/L	0.040	0.12	1	U	11/09/2016 21:36	11/09/2016 21:36	RLD	EPA 8260C
Methylene chloride	<0.050	ug/L	0.050	0.16	1	U	11/09/2016 21:36	11/09/2016 21:36	RLD	EPA 8260C
n-Butylbenzene	<0.030	ug/L	0.030	0.11	1	U	11/09/2016 21:36	11/09/2016 21:36	RLD	EPA 8260C
n-Propylbenzene	<0.040	ug/L	0.040	0.13	1	U	11/09/2016 21:36	11/09/2016 21:36	RLD	EPA 8260C
Naphthalene	<0.030	ug/L	0.030	0.10	1	U	11/09/2016 21:36	11/09/2016 21:36	RLD	EPA 8260C
o-Xylene	<0.040	ug/L	0.040	0.14	1	U	11/09/2016 21:36	11/09/2016 21:36	RLD	EPA 8260C
p-Isopropyltoluene	<0.040	ug/L	0.040	0.13	1	U	11/09/2016 21:36	11/09/2016 21:36	RLD	EPA 8260C
sec-Butylbenzene	<0.050	ug/L	0.050	0.16	1	U	11/09/2016 21:36	11/09/2016 21:36	RLD	EPA 8260C
Styrene	<0.030	ug/L	0.030	0.11	1	U	11/09/2016 21:36	11/09/2016 21:36	RLD	EPA 8260C
tert-Butylbenzene	<0.040	ug/L	0.040	0.14	1	U	11/09/2016 21:36	11/09/2016 21:36	RLD	EPA 8260C
Tetrachloroethene	<0.050	ug/L	0.050	0.18	1	U	11/09/2016 21:36	11/09/2016 21:36	RLD	EPA 8260C
Tetrahydrofuran	<0.40	ug/L	0.40	1.5	1	U	11/09/2016 21:36	11/09/2016 21:36	RLD	EPA 8260C
Toluene	<0.040	ug/L	0.040	0.13	1	U	11/09/2016 21:36	11/09/2016 21:36	RLD	EPA 8260C
trans-1,2-Dichloroethene	<0.040	ug/L	0.040	0.14	1	U	11/09/2016 21:36	11/09/2016 21:36	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.019	ug/L	0.019	0.063	1	U	11/09/2016 21:36	11/09/2016 21:36	RLD	EPA 8260C
Trichloroethene	<0.050	ug/L	0.050	0.17	1	U	11/09/2016 21:36	11/09/2016 21:36	RLD	EPA 8260C
Trichlorofluoromethane	<0.090	ug/L	0.090	0.14	1	U	11/09/2016 21:36	11/09/2016 21:36	RLD	EPA 8260C
Vinyl acetate	<0.22	ug/L	0.22	0.73	1	U	11/09/2016 21:36	11/09/2016 21:36	RLD	EPA 8260C
Vinyl chloride	<0.019	ug/L	0.019	0.064	1	U	11/09/2016 21:36	11/09/2016 21:36	RLD	EPA 8260C
1,4-Dioxane	11	ug/L	7.0	23	1	J	11/09/2016 21:36	11/09/2016 21:36	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications
Kansas NELAP ID# E-10368
Kentucky ID# 0023
ISO/IEC 17025-2005 A2LA Cert # 3806.01
North Carolina ID# 674
Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID E8711111, Expires Annually
Louisiana ID # 115843
Virginia ID# 7608
Illinois NELAP ID # 002413
Wisconsin (WOSB) ID# WI-5499-WBE
Maryland ID# 344

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase:
 Project #: 117-7413001.01
 Folder #: 123362
 Purchase Order #:
 Contract #: 2747

Page 1 of 2
 Arrival Temperature: 4.9
 Report Date: 11/30/2016
 Date Received: 11/02/2016
 Reprint Date: 11/30/2016

CT LAB#: 798960	Sample Description: MW-105B	DNR License/Well #: 4189/045	Sampled: 11/01/2016 1040
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Metals Results										
Dissolved Iron	3.23	mg/L	0.059	0.20	1		11/05/2016 15:12	11/05/2016 15:12	NAH	EPA 6010C
Dissolved Manganese	415	ug/L	2.2	7.3	1		11/05/2016 15:12	11/05/2016 15:12	NAH	EPA 6010C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications

Kansas NELAP ID# E-10368
Kentucky ID# 0023
ISO/IEC 17025-2005 A2LA Cert # 3806.01
North Carolina ID# 674
Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID E871111, Expires Annually
Louisiana ID # 115843
Virginia ID# 7608
Illinois NELAP ID # 002413
Wisconsin (WOSB) ID# WI-5499-WBE
Maryland ID# 344

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase:
 Project #: 117-7413001.01
 Folder #: 123362
 Purchase Order #:
 Contract #: 2747

Page 1 of 5
 Arrival Temperature: 4.9
 Report Date: 11/30/2016
 Date Received: 11/02/2016
 Reprint Date: 11/30/2016

CT LAB#: 798961	Sample Description: MW-105D	DNR License/Well #: 4189/044	Sampled: 11/01/2016 1110
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Field Results										
Dissolved Oxygen (Field)	1.14	mg/L	N/A	N/A	1			11/01/2016 00:00	BMS	
Depth to Groundwater (Field)	2.95	Feet	N/A	N/A	1			11/01/2016 00:00	BMS	
OX/REDOX (Field)	-82	MV	N/A	N/A	1			11/01/2016 00:00	BMS	
Color (Field)	CLEAR		N/A	N/A	1			11/01/2016 00:00	BMS	FIELD
Conductivity (Field)	1050	umhos/cm	N/A	N/A	1			11/01/2016 00:00	BMS	FIELD
Groundwater Elevation (Field)	845.95	Feet MSL	N/A	N/A	1			11/01/2016 00:00	BMS	FIELD
pH (Field)	7.31	S.U.	N/A	N/A	1			11/01/2016 00:00	BMS	FIELD
Temperature (Field)	6.9	Deg. C	N/A	N/A	1			11/01/2016 00:00	BMS	FIELD
Turbidity (Field)	CLEAR		N/A	N/A	1			11/01/2016 00:00	BMS	FIELD
Inorganic Results										
Alkalinity Total	430	mg/L	5.0	18	1			11/03/2016 15:56	LJS	EPA 310.2
Total Chloride	190	mg/L	2.8	9.6	4			11/02/2016 21:23	JJF	EPA 9056A
Total Sulfate	51	mg/L	4.0	13	4			11/02/2016 21:23	JJF	EPA 9056A
Total Organic Carbon	2.4	mg/L	0.50	1.7	1			11/07/2016 15:47	JJF	EPA 9060A
Metals Results										

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

The depth to groundwater and groundwater elevation results listed above are from a previous sampling round and therefore incorrect.

CT LAB#: 798961 Sample Description: MW-105D

DNR License/Well #: 4189/044

Sampled: 11/01/2016 1110

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Total Iron	3.04	mg/L	0.034	0.11	1		11/08/2016 15:00	11/09/2016 20:44	NAH	EPA 6010C
Total Manganese	56.8	ug/L	3.4	11	1		11/08/2016 15:00	11/09/2016 20:44	NAH	EPA 6010C
Organic Results										
Acetylene	<0.23	ug/L	0.23	0.77	1	U	11/10/2016 09:00	11/10/2016 16:44	agk	Mod RSK 175
Ethane	<0.40	ug/L	0.40	1.2	1	U	11/10/2016 09:00	11/10/2016 16:44	agk	Mod RSK 175
Ethene	<0.50	ug/L	0.50	1.8	1	U	11/10/2016 09:00	11/10/2016 16:44	agk	Mod RSK 175
Methane	58	ug/L	2.0	6.0	5		11/10/2016 09:00	11/10/2016 16:56	AGK	Mod RSK 175
1,1,1,2-Tetrachloroethane	<0.20	ug/L	0.20	0.65	5	U		11/11/2016 01:55	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.25	ug/L	0.25	0.85	5	U		11/11/2016 01:55	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.085	ug/L	0.085	0.29	5	U		11/11/2016 01:55	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.25	ug/L	0.25	0.80	5	U		11/11/2016 01:55	RLD	EPA 8260C
1,1-Dichloroethane	5.1	ug/L	0.30	0.95	5			11/11/2016 01:55	RLD	EPA 8260C
1,1-Dichloroethene	1.1	ug/L	0.30	1.0	5			11/11/2016 01:55	RLD	EPA 8260C
1,1-Dichloropropene	<0.30	ug/L	0.30	0.95	5	U		11/11/2016 01:55	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.20	ug/L	0.20	0.65	5	U		11/11/2016 01:55	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.20	ug/L	0.20	0.70	5	U		11/11/2016 01:55	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.20	ug/L	0.20	0.60	5	U		11/11/2016 01:55	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.20	ug/L	0.20	0.60	5	U		11/11/2016 01:55	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.45	ug/L	0.45	1.5	5	U		11/11/2016 01:55	RLD	EPA 8260C
1,2-Dibromoethane	<0.35	ug/L	0.35	1.2	5	U		11/11/2016 01:55	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.20	ug/L	0.20	0.65	5	U		11/11/2016 01:55	RLD	EPA 8260C
1,2-Dichloroethane	<0.25	ug/L	0.25	0.90	5	U		11/11/2016 01:55	RLD	EPA 8260C
1,2-Dichloropropane	<0.35	ug/L	0.35	1.2	5	U		11/11/2016 01:55	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<0.25	ug/L	0.25	0.80	5	U		11/11/2016 01:55	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.20	ug/L	0.20	0.65	5	U		11/11/2016 01:55	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 798961 Sample Description:MW-105D

DNR License/Well #: 4189/044

Sampled: 11/01/2016 1110

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,3-Dichloropropane	<0.20	ug/L	0.20	0.65	5	U		11/11/2016 01:55	RLD	EPA 8260C
1,4-Dichlorobenzene	<0.20	ug/L	0.20	0.65	5	U		11/11/2016 01:55	RLD	EPA 8260C
2,2-Dichloropropane	<0.25	ug/L	0.25	0.75	5	U		11/11/2016 01:55	RLD	EPA 8260C
2-Butanone	<2.5	ug/L	2.5	7.5	5	U		11/11/2016 01:55	RLD	EPA 8260C
2-Chlorotoluene	<0.15	ug/L	0.15	0.55	5	U		11/11/2016 01:55	RLD	EPA 8260C
2-Hexanone	<1.2	ug/L	1.2	4.1	5	U		11/11/2016 01:55	RLD	EPA 8260C
4-Chlorotoluene	<0.20	ug/L	0.20	0.60	5	U		11/11/2016 01:55	RLD	EPA 8260C
4-Methyl-2-pentanone	<1.2	ug/L	1.2	4.1	5	U		11/11/2016 01:55	RLD	EPA 8260C
Acetone	<1.5	ug/L	1.5	5.0	5	U		11/11/2016 01:55	RLD	EPA 8260C
Benzene	<0.090	ug/L	0.090	0.30	5	U		11/11/2016 01:55	RLD	EPA 8260C
Bromobenzene	<0.20	ug/L	0.20	0.75	5	U		11/11/2016 01:55	RLD	EPA 8260C
Bromochloromethane	<0.15	ug/L	0.15	0.50	5	U		11/11/2016 01:55	RLD	EPA 8260C
Bromodichloromethane	<0.080	ug/L	0.080	0.27	5	U		11/11/2016 01:55	RLD	EPA 8260C
Bromoform	<0.20	ug/L	0.20	0.60	5	U		11/11/2016 01:55	RLD	EPA 8260C
Bromomethane	<0.40	ug/L	0.40	1.4	5	U Z		11/11/2016 01:55	RLD	EPA 8260C
Carbon disulfide	<0.35	ug/L	0.35	1.3	5	U		11/11/2016 01:55	RLD	EPA 8260C
Carbon tetrachloride	<0.25	ug/L	0.25	0.90	5	U		11/11/2016 01:55	RLD	EPA 8260C
Chlorobenzene	<0.20	ug/L	0.20	0.75	5	U		11/11/2016 01:55	RLD	EPA 8260C
Chloroethane	<0.35	ug/L	0.35	1.2	5	U		11/11/2016 01:55	RLD	EPA 8260C
Chloroform	<0.15	ug/L	0.15	0.55	5	U		11/11/2016 01:55	RLD	EPA 8260C
Chloromethane	<0.20	ug/L	0.20	0.65	5	U		11/11/2016 01:55	RLD	EPA 8260C
cis-1,2-Dichloroethene	55	ug/L	0.35	1.2	5			11/11/2016 01:55	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.055	ug/L	0.055	0.19	5	U		11/11/2016 01:55	RLD	EPA 8260C
Dibromochloromethane	<0.15	ug/L	0.15	0.50	5	U		11/11/2016 01:55	RLD	EPA 8260C
Dibromomethane	<0.25	ug/L	0.25	0.85	5	U		11/11/2016 01:55	RLD	EPA 8260C
Dichlorodifluoromethane	<0.30	ug/L	0.30	0.95	5	U		11/11/2016 01:55	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 798961 Sample Description:MW-105D

DNR License/Well #: 4189/044

Sampled: 11/01/2016 1110

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Diisopropyl ether	<0.20	ug/L	0.20	0.70	5	U	11/11/2016 01:55	11/11/2016 01:55	RLD	EPA 8260C
Ethylbenzene	<0.20	ug/L	0.20	0.75	5	U	11/11/2016 01:55	11/11/2016 01:55	RLD	EPA 8260C
Hexachlorobutadiene	<0.25	ug/L	0.25	0.80	5	U	11/11/2016 01:55	11/11/2016 01:55	RLD	EPA 8260C
Isopropylbenzene	<0.20	ug/L	0.20	0.60	5	U	11/11/2016 01:55	11/11/2016 01:55	RLD	EPA 8260C
m & p-Xylene	<0.35	ug/L	0.35	1.2	5	U	11/11/2016 01:55	11/11/2016 01:55	RLD	EPA 8260C
Methyl tert-butyl ether	0.22	ug/L	0.20	0.60	5	J	11/11/2016 01:55	11/11/2016 01:55	RLD	EPA 8260C
Methylene chloride	<0.25	ug/L	0.25	0.80	5	U	11/11/2016 01:55	11/11/2016 01:55	RLD	EPA 8260C
n-Butylbenzene	<0.15	ug/L	0.15	0.55	5	U	11/11/2016 01:55	11/11/2016 01:55	RLD	EPA 8260C
n-Propylbenzene	<0.20	ug/L	0.20	0.65	5	U	11/11/2016 01:55	11/11/2016 01:55	RLD	EPA 8260C
Naphthalene	<0.15	ug/L	0.15	0.50	5	U	11/11/2016 01:55	11/11/2016 01:55	RLD	EPA 8260C
o-Xylene	<0.20	ug/L	0.20	0.70	5	U	11/11/2016 01:55	11/11/2016 01:55	RLD	EPA 8260C
p-Isopropyltoluene	<0.20	ug/L	0.20	0.65	5	U	11/11/2016 01:55	11/11/2016 01:55	RLD	EPA 8260C
sec-Butylbenzene	<0.25	ug/L	0.25	0.80	5	U	11/11/2016 01:55	11/11/2016 01:55	RLD	EPA 8260C
Styrene	<0.15	ug/L	0.15	0.55	5	U	11/11/2016 01:55	11/11/2016 01:55	RLD	EPA 8260C
tert-Butylbenzene	<0.20	ug/L	0.20	0.70	5	U	11/11/2016 01:55	11/11/2016 01:55	RLD	EPA 8260C
Tetrachloroethene	<0.25	ug/L	0.25	0.90	5	U	11/11/2016 01:55	11/11/2016 01:55	RLD	EPA 8260C
Tetrahydrofuran	<2.0	ug/L	2.0	7.5	5	U	11/11/2016 01:55	11/11/2016 01:55	RLD	EPA 8260C
Toluene	<0.20	ug/L	0.20	0.65	5	U	11/11/2016 01:55	11/11/2016 01:55	RLD	EPA 8260C
trans-1,2-Dichloroethene	1.4	ug/L	0.20	0.70	5		11/11/2016 01:55	11/11/2016 01:55	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.095	ug/L	0.095	0.32	5	U	11/11/2016 01:55	11/11/2016 01:55	RLD	EPA 8260C
Trichloroethene	0.78	ug/L	0.25	0.85	5	J	11/11/2016 01:55	11/11/2016 01:55	RLD	EPA 8260C
Trichlorofluoromethane	<0.45	ug/L	0.45	0.70	5	U	11/11/2016 01:55	11/11/2016 01:55	RLD	EPA 8260C
Vinyl acetate	<1.1	ug/L	1.1	3.7	5	U	11/11/2016 01:55	11/11/2016 01:55	RLD	EPA 8260C
Vinyl chloride	2.0	ug/L	0.095	0.32	5		11/11/2016 01:55	11/11/2016 01:55	RLD	EPA 8260C
1,4-Dioxane	<35	ug/L	35	120	5	U	11/11/2016 01:55	11/11/2016 01:55	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications
Kansas NELAP ID# E-10368
Kentucky ID# 0023
ISO/IEC 17025-2005 A2LA Cert # 3806.01
North Carolina ID# 674
Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID E8711111, Expires Annually
Louisiana ID # 115843
Virginia ID# 7608
Illinois NELAP ID # 002413
Wisconsin (WOSB) ID# WI-5499-WBE
Maryland ID# 344

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase:
 Project #: 117-7413001.01
 Folder #: 123362
 Purchase Order #:
 Contract #: 2747

Page 1 of 2
 Arrival Temperature: 4.9
 Report Date: 11/30/2016
 Date Received: 11/02/2016
 Reprint Date: 11/30/2016

CT LAB#: 798962	Sample Description: MW-105D	DNR License/Well #: 4189/044	Sampled: 11/01/2016 1110
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Metals Results										
Dissolved Iron	1.33	mg/L	0.059	0.20	1		11/05/2016 15:53	11/05/2016 15:53	NAH	EPA 6010C
Dissolved Manganese	57.7	ug/L	2.2	7.3	1		11/05/2016 15:53	11/05/2016 15:53	NAH	EPA 6010C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications
Kansas NELAP ID# E-10368
Kentucky ID# 0023
ISO/IEC 17025-2005 A2LA Cert # 3806.01
North Carolina ID# 674
Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID E8711111, Expires Annually
Louisiana ID # 115843
Virginia ID# 7608
Illinois NELAP ID # 002413
Wisconsin (WOSB) ID# WI-5499-WBE
Maryland ID# 344

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase:
 Project #: 117-7413001.01
 Folder #: 123362
 Purchase Order #:
 Contract #: 2747

Page 1 of 5
 Arrival Temperature: 4.9
 Report Date: 11/30/2016
 Date Received: 11/02/2016
 Reprint Date: 11/30/2016

CT LAB#: 798963	Sample Description: MW-105S	DNR License/Well #: 4189/043	Sampled: 11/01/2016 1205
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Field Results										
Dissolved Oxygen (Field)	0	mg/L	N/A	N/A	1			11/01/2016 00:00	BMS	
Depth to Groundwater (Field)	3.50	Feet	N/A	N/A	1			11/01/2016 00:00	BMS	
OX/REDOX (Field)	-67	MV	N/A	N/A	1			11/01/2016 00:00	BMS	
Color (Field)	CLEAR		N/A	N/A	1			11/01/2016 00:00	BMS	FIELD
Conductivity (Field)	1760	umhos/cm	N/A	N/A	1			11/01/2016 00:00	BMS	FIELD
Groundwater Elevation (Field)	845.51	Feet MSL	N/A	N/A	1			11/01/2016 00:00	BMS	FIELD
pH (Field)	7.03	S.U.	N/A	N/A	1			11/01/2016 00:00	BMS	FIELD
Temperature (Field)	9.00	Deg. C	N/A	N/A	1			11/01/2016 00:00	BMS	FIELD
Turbidity (Field)	CLEAR		N/A	N/A	1			11/01/2016 00:00	BMS	FIELD
Inorganic Results										
Alkalinity Total	420	mg/L	5.0	18	1			11/03/2016 15:57	LJS	EPA 310.2
Total Chloride	360	mg/L	3.5	12	5			11/02/2016 21:44	JJF	EPA 9056A
Total Sulfate	48	mg/L	5.0	16	5			11/02/2016 21:44	JJF	EPA 9056A
Total Organic Carbon	2.8	mg/L	0.50	1.7	1			11/07/2016 15:59	JJF	EPA 9060A
Metals Results										

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

The depth to groundwater and groundwater elevation results listed above are from a previous sampling round and therefore incorrect.

CT LAB#: 798963 Sample Description: MW-105S

DNR License/Well #: 4189/043

Sampled: 11/01/2016 1205

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Total Iron	3.41	mg/L	0.034	0.11	1		11/08/2016 15:00	11/09/2016 20:51	NAH	EPA 6010C
Total Manganese	221	ug/L	3.4	11	1		11/08/2016 15:00	11/09/2016 20:51	NAH	EPA 6010C
Organic Results										
Acetylene	<0.23	ug/L	0.23	0.77	1	U	11/10/2016 09:00	11/10/2016 17:05	agk	Mod RSK 175
Ethane	0.60	ug/L	0.40	1.2	1	J	11/10/2016 09:00	11/10/2016 17:05	agk	Mod RSK 175
Ethene	<0.50	ug/L	0.50	1.8	1	U	11/10/2016 09:00	11/10/2016 17:05	agk	Mod RSK 175
Methane	21	ug/L	4.0	12	10		11/10/2016 09:00	11/10/2016 17:15	AGK	Mod RSK 175
1,1,1,2-Tetrachloroethane	<4.0	ug/L	4.0	13	100	U		11/11/2016 02:24	RLD	EPA 8260C
1,1,1-Trichloroethane	<5.0	ug/L	5.0	17	100	U		11/11/2016 02:24	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<1.7	ug/L	1.7	5.7	100	U		11/11/2016 02:24	RLD	EPA 8260C
1,1,2-Trichloroethane	<5.0	ug/L	5.0	16	100	U		11/11/2016 02:24	RLD	EPA 8260C
1,1-Dichloroethane	56	ug/L	6.0	19	100			11/11/2016 02:24	RLD	EPA 8260C
1,1-Dichloroethene	10	ug/L	6.0	20	100	J		11/11/2016 02:24	RLD	EPA 8260C
1,1-Dichloropropene	<6.0	ug/L	6.0	19	100	U		11/11/2016 02:24	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<4.0	ug/L	4.0	13	100	U		11/11/2016 02:24	RLD	EPA 8260C
1,2,3-Trichloropropane	<4.0	ug/L	4.0	14	100	U		11/11/2016 02:24	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<4.0	ug/L	4.0	12	100	U		11/11/2016 02:24	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<4.0	ug/L	4.0	12	100	U		11/11/2016 02:24	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<9.0	ug/L	9.0	29	100	U		11/11/2016 02:24	RLD	EPA 8260C
1,2-Dibromoethane	<7.0	ug/L	7.0	23	100	U		11/11/2016 02:24	RLD	EPA 8260C
1,2-Dichlorobenzene	<4.0	ug/L	4.0	13	100	U		11/11/2016 02:24	RLD	EPA 8260C
1,2-Dichloroethane	<5.0	ug/L	5.0	18	100	U		11/11/2016 02:24	RLD	EPA 8260C
1,2-Dichloropropane	<7.0	ug/L	7.0	23	100	U		11/11/2016 02:24	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<5.0	ug/L	5.0	16	100	U		11/11/2016 02:24	RLD	EPA 8260C
1,3-Dichlorobenzene	<4.0	ug/L	4.0	13	100	U		11/11/2016 02:24	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 798963 Sample Description:MW-105S

DNR License/Well #: 4189/043

Sampled: 11/01/2016 1205

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,3-Dichloropropane	<4.0	ug/L	4.0	13	100	U		11/11/2016 02:24	RLD	EPA 8260C
1,4-Dichlorobenzene	<4.0	ug/L	4.0	13	100	U		11/11/2016 02:24	RLD	EPA 8260C
2,2-Dichloropropane	<5.0	ug/L	5.0	15	100	U		11/11/2016 02:24	RLD	EPA 8260C
2-Butanone	<50	ug/L	50	150	100	U		11/11/2016 02:24	RLD	EPA 8260C
2-Chlorotoluene	<3.0	ug/L	3.0	11	100	U		11/11/2016 02:24	RLD	EPA 8260C
2-Hexanone	<24	ug/L	24	81	100	U		11/11/2016 02:24	RLD	EPA 8260C
4-Chlorotoluene	<4.0	ug/L	4.0	12	100	U		11/11/2016 02:24	RLD	EPA 8260C
4-Methyl-2-pentanone	<24	ug/L	24	82	100	U		11/11/2016 02:24	RLD	EPA 8260C
Acetone	44	ug/L	30	100	100	J B		11/11/2016 02:24	RLD	EPA 8260C
Benzene	<1.8	ug/L	1.8	5.9	100	U		11/11/2016 02:24	RLD	EPA 8260C
Bromobenzene	<4.0	ug/L	4.0	15	100	U		11/11/2016 02:24	RLD	EPA 8260C
Bromochloromethane	<3.0	ug/L	3.0	9.9	100	U		11/11/2016 02:24	RLD	EPA 8260C
Bromodichloromethane	<1.6	ug/L	1.6	5.4	100	U		11/11/2016 02:24	RLD	EPA 8260C
Bromoform	<4.0	ug/L	4.0	12	100	U		11/11/2016 02:24	RLD	EPA 8260C
Bromomethane	<8.0	ug/L	8.0	28	100	U Z		11/11/2016 02:24	RLD	EPA 8260C
Carbon disulfide	<7.0	ug/L	7.0	25	100	U		11/11/2016 02:24	RLD	EPA 8260C
Carbon tetrachloride	<5.0	ug/L	5.0	18	100	U		11/11/2016 02:24	RLD	EPA 8260C
Chlorobenzene	<4.0	ug/L	4.0	15	100	U		11/11/2016 02:24	RLD	EPA 8260C
Chloroethane	<7.0	ug/L	7.0	23	100	U		11/11/2016 02:24	RLD	EPA 8260C
Chloroform	<3.0	ug/L	3.0	11	100	U		11/11/2016 02:24	RLD	EPA 8260C
Chloromethane	<4.0	ug/L	4.0	13	100	U		11/11/2016 02:24	RLD	EPA 8260C
cis-1,2-Dichloroethene	990	ug/L	7.0	23	100			11/11/2016 02:24	RLD	EPA 8260C
cis-1,3-Dichloropropene	<1.1	ug/L	1.1	3.8	100	U		11/11/2016 02:24	RLD	EPA 8260C
Dibromochloromethane	<3.0	ug/L	3.0	10	100	U		11/11/2016 02:24	RLD	EPA 8260C
Dibromomethane	<5.0	ug/L	5.0	17	100	U		11/11/2016 02:24	RLD	EPA 8260C
Dichlorodifluoromethane	<6.0	ug/L	6.0	19	100	U		11/11/2016 02:24	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 798963 Sample Description:MW-105S

DNR License/Well #: 4189/043

Sampled: 11/01/2016 1205

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Diisopropyl ether	<4.0	ug/L	4.0	14	100	U		11/11/2016 02:24	RLD	EPA 8260C
Ethylbenzene	<4.0	ug/L	4.0	15	100	U		11/11/2016 02:24	RLD	EPA 8260C
Hexachlorobutadiene	<5.0	ug/L	5.0	16	100	U		11/11/2016 02:24	RLD	EPA 8260C
Isopropylbenzene	<4.0	ug/L	4.0	12	100	U		11/11/2016 02:24	RLD	EPA 8260C
m & p-Xylene	<7.0	ug/L	7.0	23	100	U		11/11/2016 02:24	RLD	EPA 8260C
Methyl tert-butyl ether	<4.0	ug/L	4.0	12	100	U		11/11/2016 02:24	RLD	EPA 8260C
Methylene chloride	<5.0	ug/L	5.0	16	100	U		11/11/2016 02:24	RLD	EPA 8260C
n-Butylbenzene	<3.0	ug/L	3.0	11	100	U		11/11/2016 02:24	RLD	EPA 8260C
n-Propylbenzene	<4.0	ug/L	4.0	13	100	U		11/11/2016 02:24	RLD	EPA 8260C
Naphthalene	<3.0	ug/L	3.0	10	100	U		11/11/2016 02:24	RLD	EPA 8260C
o-Xylene	<4.0	ug/L	4.0	14	100	U		11/11/2016 02:24	RLD	EPA 8260C
p-Isopropyltoluene	<4.0	ug/L	4.0	13	100	U		11/11/2016 02:24	RLD	EPA 8260C
sec-Butylbenzene	<5.0	ug/L	5.0	16	100	U		11/11/2016 02:24	RLD	EPA 8260C
Styrene	<3.0	ug/L	3.0	11	100	U		11/11/2016 02:24	RLD	EPA 8260C
tert-Butylbenzene	<4.0	ug/L	4.0	14	100	U		11/11/2016 02:24	RLD	EPA 8260C
Tetrachloroethene	<5.0	ug/L	5.0	18	100	U		11/11/2016 02:24	RLD	EPA 8260C
Tetrahydrofuran	51	ug/L	40	150	100	J B		11/11/2016 02:24	RLD	EPA 8260C
Toluene	<4.0	ug/L	4.0	13	100	U		11/11/2016 02:24	RLD	EPA 8260C
trans-1,2-Dichloroethene	100	ug/L	4.0	14	100			11/11/2016 02:24	RLD	EPA 8260C
trans-1,3-Dichloropropene	<1.9	ug/L	1.9	6.3	100	U		11/11/2016 02:24	RLD	EPA 8260C
Trichloroethene	950	ug/L	5.0	17	100			11/11/2016 02:24	RLD	EPA 8260C
Trichlorofluoromethane	<9.0	ug/L	9.0	14	100	U		11/11/2016 02:24	RLD	EPA 8260C
Vinyl acetate	<22	ug/L	22	73	100	U		11/11/2016 02:24	RLD	EPA 8260C
Vinyl chloride	4.1	ug/L	1.9	6.4	100	J		11/11/2016 02:24	RLD	EPA 8260C
1,4-Dioxane	<700	ug/L	700	2300	100	U		11/11/2016 02:24	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications
Kansas NELAP ID# E-10368
Kentucky ID# 0023
ISO/IEC 17025-2005 A2LA Cert # 3806.01
North Carolina ID# 674
Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID E871111, Expires Annually
Louisiana ID # 115843
Virginia ID# 7608
Illinois NELAP ID # 002413
Wisconsin (WOSB) ID# WI-5499-WBE
Maryland ID# 344

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase:
 Project #: 117-7413001.01
 Folder #: 123362
 Purchase Order #:
 Contract #: 2747

Page 1 of 2
 Arrival Temperature: 4.9
 Report Date: 11/30/2016
 Date Received: 11/02/2016
 Reprint Date: 11/30/2016

CT LAB#: 798964	Sample Description: MW-105S	DNR License/Well #: 4189/043	Sampled: 11/01/2016 1205
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Metals Results										
Dissolved Iron	1.54	mg/L	0.059	0.20	1		11/05/2016 16:01	11/05/2016 16:01	NAH	EPA 6010C
Dissolved Manganese	234	ug/L	2.2	7.3	1		11/05/2016 16:01	11/05/2016 16:01	NAH	EPA 6010C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications
Kansas NELAP ID# E-10368
Kentucky ID# 0023
ISO/IEC 17025-2005 A2LA Cert # 3806.01
North Carolina ID# 674
Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID E8711111, Expires Annually
Louisiana ID # 115843
Virginia ID# 7608
Illinois NELAP ID # 002413
Wisconsin (WOSB) ID# WI-5499-WBE
Maryland ID# 344

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase:
 Project #: 117-7413001.01
 Folder #: 123362
 Purchase Order #:
 Contract #: 2747

Page 1 of 5
 Arrival Temperature: 4.9
 Report Date: 11/30/2016
 Date Received: 11/02/2016
 Reprint Date: 11/30/2016

CT LAB#: 798965	Sample Description: MW-105S DUP	DNR License/Well #: 4189/043	Sampled: 11/01/2016 1210
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results										
Alkalinity Total	420	mg/L	5.0	18	1			11/03/2016 15:58	LJS	EPA 310.2
Total Chloride	360	mg/L	3.5	12	5			11/02/2016 22:04	JJF	EPA 9056A
Total Sulfate	48	mg/L	5.0	16	5			11/02/2016 22:04	JJF	EPA 9056A
Total Organic Carbon	2.8	mg/L	0.50	1.7	1			11/07/2016 16:12	JJF	EPA 9060A
Metals Results										
Total Iron	4.71	mg/L	0.034	0.11	1		11/08/2016 15:00	11/09/2016 20:59	NAH	EPA 6010C
Total Manganese	222	ug/L	3.4	11	1		11/08/2016 15:00	11/09/2016 20:59	NAH	EPA 6010C
Organic Results										
Acetylene	<0.23	ug/L	0.23	0.77	1	U	11/10/2016 09:00	11/11/2016 09:04	agk	Mod RSK 175
Ethane	1.3	ug/L	0.40	1.2	1		11/10/2016 09:00	11/11/2016 09:04	agk	Mod RSK 175
Ethene	<0.50	ug/L	0.50	1.8	1	U	11/10/2016 09:00	11/11/2016 09:04	agk	Mod RSK 175
Methane	41	ug/L	8.0	24	20		11/10/2016 09:00	11/11/2016 09:16	AGK	Mod RSK 175
1,1,1,2-Tetrachloroethane	<4.0	ug/L	4.0	13	100	U		11/11/2016 02:53	RLD	EPA 8260C
1,1,1-Trichloroethane	<5.0	ug/L	5.0	17	100	U		11/11/2016 02:53	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<1.7	ug/L	1.7	5.7	100	U		11/11/2016 02:53	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 798965 Sample Description:MW-105S DUP

DNR License/Well #: 4189/043

Sampled: 11/01/2016 1210

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,1,2-Trichloroethane	<5.0	ug/L	5.0	16	100	U		11/11/2016 02:53	RLD	EPA 8260C
1,1-Dichloroethane	61	ug/L	6.0	19	100			11/11/2016 02:53	RLD	EPA 8260C
1,1-Dichloroethene	11	ug/L	6.0	20	100	J		11/11/2016 02:53	RLD	EPA 8260C
1,1-Dichloropropene	<6.0	ug/L	6.0	19	100	U		11/11/2016 02:53	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<4.0	ug/L	4.0	13	100	U		11/11/2016 02:53	RLD	EPA 8260C
1,2,3-Trichloropropane	<4.0	ug/L	4.0	14	100	U		11/11/2016 02:53	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<4.0	ug/L	4.0	12	100	U		11/11/2016 02:53	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<4.0	ug/L	4.0	12	100	U		11/11/2016 02:53	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<9.0	ug/L	9.0	29	100	U		11/11/2016 02:53	RLD	EPA 8260C
1,2-Dibromoethane	<7.0	ug/L	7.0	23	100	U		11/11/2016 02:53	RLD	EPA 8260C
1,2-Dichlorobenzene	<4.0	ug/L	4.0	13	100	U		11/11/2016 02:53	RLD	EPA 8260C
1,2-Dichloroethane	<5.0	ug/L	5.0	18	100	U		11/11/2016 02:53	RLD	EPA 8260C
1,2-Dichloropropane	<7.0	ug/L	7.0	23	100	U		11/11/2016 02:53	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<5.0	ug/L	5.0	16	100	U		11/11/2016 02:53	RLD	EPA 8260C
1,3-Dichlorobenzene	<4.0	ug/L	4.0	13	100	U		11/11/2016 02:53	RLD	EPA 8260C
1,3-Dichloropropane	<4.0	ug/L	4.0	13	100	U		11/11/2016 02:53	RLD	EPA 8260C
1,4-Dichlorobenzene	<4.0	ug/L	4.0	13	100	U		11/11/2016 02:53	RLD	EPA 8260C
2,2-Dichloropropane	<5.0	ug/L	5.0	15	100	U		11/11/2016 02:53	RLD	EPA 8260C
2-Butanone	<50	ug/L	50	150	100	U		11/11/2016 02:53	RLD	EPA 8260C
2-Chlorotoluene	<3.0	ug/L	3.0	11	100	U		11/11/2016 02:53	RLD	EPA 8260C
2-Hexanone	<24	ug/L	24	81	100	U		11/11/2016 02:53	RLD	EPA 8260C
4-Chlorotoluene	<4.0	ug/L	4.0	12	100	U		11/11/2016 02:53	RLD	EPA 8260C
4-Methyl-2-pentanone	<24	ug/L	24	82	100	U		11/11/2016 02:53	RLD	EPA 8260C
Acetone	46	ug/L	30	100	100	J B		11/11/2016 02:53	RLD	EPA 8260C
Benzene	<1.8	ug/L	1.8	5.9	100	U		11/11/2016 02:53	RLD	EPA 8260C
Bromobenzene	<4.0	ug/L	4.0	15	100	U		11/11/2016 02:53	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 798965 Sample Description:MW-105S DUP

DNR License/Well #: 4189/043

Sampled: 11/01/2016 1210

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Bromochloromethane	<3.0	ug/L	3.0	9.9	100	U		11/11/2016 02:53	RLD	EPA 8260C
Bromodichloromethane	<1.6	ug/L	1.6	5.4	100	U		11/11/2016 02:53	RLD	EPA 8260C
Bromoform	<4.0	ug/L	4.0	12	100	U		11/11/2016 02:53	RLD	EPA 8260C
Bromomethane	<8.0	ug/L	8.0	28	100	U Z		11/11/2016 02:53	RLD	EPA 8260C
Carbon disulfide	<7.0	ug/L	7.0	25	100	U		11/11/2016 02:53	RLD	EPA 8260C
Carbon tetrachloride	<5.0	ug/L	5.0	18	100	U		11/11/2016 02:53	RLD	EPA 8260C
Chlorobenzene	<4.0	ug/L	4.0	15	100	U		11/11/2016 02:53	RLD	EPA 8260C
Chloroethane	<7.0	ug/L	7.0	23	100	U		11/11/2016 02:53	RLD	EPA 8260C
Chloroform	<3.0	ug/L	3.0	11	100	U		11/11/2016 02:53	RLD	EPA 8260C
Chloromethane	<4.0	ug/L	4.0	13	100	U		11/11/2016 02:53	RLD	EPA 8260C
cis-1,2-Dichloroethene	1000	ug/L	7.0	23	100			11/11/2016 02:53	RLD	EPA 8260C
cis-1,3-Dichloropropene	<1.1	ug/L	1.1	3.8	100	U		11/11/2016 02:53	RLD	EPA 8260C
Dibromochloromethane	<3.0	ug/L	3.0	10	100	U		11/11/2016 02:53	RLD	EPA 8260C
Dibromomethane	<5.0	ug/L	5.0	17	100	U		11/11/2016 02:53	RLD	EPA 8260C
Dichlorodifluoromethane	<6.0	ug/L	6.0	19	100	U		11/11/2016 02:53	RLD	EPA 8260C
Diisopropyl ether	<4.0	ug/L	4.0	14	100	U		11/11/2016 02:53	RLD	EPA 8260C
Ethylbenzene	<4.0	ug/L	4.0	15	100	U		11/11/2016 02:53	RLD	EPA 8260C
Hexachlorobutadiene	<5.0	ug/L	5.0	16	100	U		11/11/2016 02:53	RLD	EPA 8260C
Isopropylbenzene	<4.0	ug/L	4.0	12	100	U		11/11/2016 02:53	RLD	EPA 8260C
m & p-Xylene	<7.0	ug/L	7.0	23	100	U		11/11/2016 02:53	RLD	EPA 8260C
Methyl tert-butyl ether	<4.0	ug/L	4.0	12	100	U		11/11/2016 02:53	RLD	EPA 8260C
Methylene chloride	<5.0	ug/L	5.0	16	100	U		11/11/2016 02:53	RLD	EPA 8260C
n-Butylbenzene	<3.0	ug/L	3.0	11	100	U		11/11/2016 02:53	RLD	EPA 8260C
n-Propylbenzene	<4.0	ug/L	4.0	13	100	U		11/11/2016 02:53	RLD	EPA 8260C
Naphthalene	<3.0	ug/L	3.0	10	100	U		11/11/2016 02:53	RLD	EPA 8260C
o-Xylene	<4.0	ug/L	4.0	14	100	U		11/11/2016 02:53	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 798965 Sample Description: MW-105S DUP

DNR License/Well #: 4189/043

Sampled: 11/01/2016 1210

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
p-Isopropyltoluene	<4.0	ug/L	4.0	13	100	U		11/11/2016 02:53	RLD	EPA 8260C
sec-Butylbenzene	<5.0	ug/L	5.0	16	100	U		11/11/2016 02:53	RLD	EPA 8260C
Styrene	<3.0	ug/L	3.0	11	100	U		11/11/2016 02:53	RLD	EPA 8260C
tert-Butylbenzene	<4.0	ug/L	4.0	14	100	U		11/11/2016 02:53	RLD	EPA 8260C
Tetrachloroethene	<5.0	ug/L	5.0	18	100	U		11/11/2016 02:53	RLD	EPA 8260C
Tetrahydrofuran	<40	ug/L	40	150	100	U		11/11/2016 02:53	RLD	EPA 8260C
Toluene	<4.0	ug/L	4.0	13	100	U		11/11/2016 02:53	RLD	EPA 8260C
trans-1,2-Dichloroethene	120	ug/L	4.0	14	100			11/11/2016 02:53	RLD	EPA 8260C
trans-1,3-Dichloropropene	<1.9	ug/L	1.9	6.3	100	U		11/11/2016 02:53	RLD	EPA 8260C
Trichloroethene	1000	ug/L	5.0	17	100			11/11/2016 02:53	RLD	EPA 8260C
Trichlorofluoromethane	<9.0	ug/L	9.0	14	100	U		11/11/2016 02:53	RLD	EPA 8260C
Vinyl acetate	<22	ug/L	22	73	100	U		11/11/2016 02:53	RLD	EPA 8260C
Vinyl chloride	5.2	ug/L	1.9	6.4	100	J		11/11/2016 02:53	RLD	EPA 8260C
1,4-Dioxane	<700	ug/L	700	2300	100	U		11/11/2016 02:53	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

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Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications
Kansas NELAP ID# E-10368
Kentucky ID# 0023
ISO/IEC 17025-2005 A2LA Cert # 3806.01
North Carolina ID# 674
Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID E871111, Expires Annually
Louisiana ID # 115843
Virginia ID# 7608
Illinois NELAP ID # 002413
Wisconsin (WOSB) ID# WI-5499-WBE
Maryland ID# 344

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase:
 Project #: 117-7413001.01
 Folder #: 123362
 Purchase Order #:
 Contract #: 2747

Page 1 of 2
 Arrival Temperature: 4.9
 Report Date: 11/30/2016
 Date Received: 11/02/2016
 Reprint Date: 11/30/2016

CT LAB#: 798966	Sample Description: MW-105S DUP	DNR License/Well #: 4189/043	Sampled: 11/01/2016 1210
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Metals Results										
Dissolved Iron	1.55	mg/L	0.059	0.20	1		11/05/2016 16:08	11/05/2016 16:08	NAH	EPA 6010C
Dissolved Manganese	234	ug/L	2.2	7.3	1		11/05/2016 16:08	11/05/2016 16:08	NAH	EPA 6010C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

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Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

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Kansas NELAP ID# E-10368
Kentucky ID# 0023
ISO/IEC 17025-2005 A2LA Cert # 3806.01
North Carolina ID# 674
Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID E8711111, Expires Annually
Louisiana ID # 115843
Virginia ID# 7608
Illinois NELAP ID # 002413
Wisconsin (WOSB) ID# WI-5499-WBE
Maryland ID# 344

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase:
 Project #: 117-7413001.01
 Folder #: 123362
 Purchase Order #:
 Contract #: 2747

Page 1 of 6
 Arrival Temperature: 4.9
 Report Date: 11/30/2016
 Date Received: 11/02/2016
 Reprint Date: 11/30/2016

CT LAB#: 798967	Sample Description: MW-12S	DNR License/Well #: 4189/020	Sampled: 11/01/2016 1310
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Field Results										
Dissolved Oxygen (Field)	0	mg/L	N/A	N/A	1			11/01/2016 00:00	BMS	
Depth to Groundwater (Field)	4.00	Feet	N/A	N/A	1			11/01/2016 00:00	BMS	
OX/REDOX (Field)	24	MV	N/A	N/A	1			11/01/2016 00:00	BMS	
Color (Field)	CLEAR		N/A	N/A	1			11/01/2016 00:00	BMS	FIELD
Conductivity (Field)	1020	umhos/cm	N/A	N/A	1			11/01/2016 00:00	BMS	FIELD
Groundwater Elevation (Field)	845.17	Feet MSL	N/A	N/A	1			11/01/2016 00:00	BMS	FIELD
pH (Field)	6.90	S.U.	N/A	N/A	1			11/01/2016 00:00	BMS	FIELD
Temperature (Field)	12.18	Deg. C	N/A	N/A	1			11/01/2016 00:00	BMS	FIELD
Turbidity (Field)	YES		N/A	N/A	1			11/01/2016 00:00	BMS	FIELD
Inorganic Results										
Alkalinity Total	390	mg/L	5.0	18	1			11/03/2016 16:02	LJS	EPA 310.2
Total Chloride	230	mg/L	2.8	9.6	4			11/02/2016 23:28	JJF	EPA 9056A
Total Sulfate	50	mg/L	4.0	13	4			11/02/2016 23:28	JJF	EPA 9056A
Total Organic Carbon	2.4	mg/L	0.50	1.7	1			11/07/2016 16:24	JJF	EPA 9060A
Metals Results										

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

The depth to groundwater and groundwater elevation results listed above are from a previous sampling round and therefore incorrect.

CT LAB#: 798967 Sample Description:MW-12S

DNR License/Well #: 4189/020

Sampled: 11/01/2016 1310

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Total Iron	0.139	mg/L	0.034	0.11	1		11/08/2016 15:00	11/09/2016 21:06	NAH	EPA 6010C
Total Manganese	137	ug/L	3.4	11	1		11/08/2016 15:00	11/09/2016 21:06	NAH	EPA 6010C
Organic Results										
Acetylene	<0.23	ug/L	0.23	0.77	1	U Y	11/10/2016 09:00	11/11/2016 09:25	agk	Mod RSK 175
Ethane	<0.40	ug/L	0.40	1.2	1	U	11/10/2016 09:00	11/11/2016 09:25	agk	Mod RSK 175
Ethene	<0.50	ug/L	0.50	1.8	1	U	11/10/2016 09:00	11/11/2016 09:25	agk	Mod RSK 175
Methane	6.9	ug/L	0.40	1.2	1	M	11/10/2016 09:00	11/11/2016 09:25	agk	Mod RSK 175
Volatile Organic Compounds 8260 Comments: Suspected methylene chloride laboratory contamination.										
1,1,1,2-Tetrachloroethane	<0.20	ug/L	0.20	0.65	5	U		11/10/2016 02:27	RLD	EPA 8260C
1,1,1-Trichloroethane	32	ug/L	0.25	0.85	5			11/10/2016 02:27	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.085	ug/L	0.085	0.29	5	U		11/10/2016 02:27	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.25	ug/L	0.25	0.80	5	U		11/10/2016 02:27	RLD	EPA 8260C
1,1-Dichloroethane	14	ug/L	0.30	0.95	5			11/10/2016 02:27	RLD	EPA 8260C
1,1-Dichloroethene	5.1	ug/L	0.30	1.0	5			11/10/2016 02:27	RLD	EPA 8260C
1,1-Dichloropropene	<0.30	ug/L	0.30	0.95	5	U		11/10/2016 02:27	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.20	ug/L	0.20	0.65	5	U		11/10/2016 02:27	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.20	ug/L	0.20	0.70	5	U		11/10/2016 02:27	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.20	ug/L	0.20	0.60	5	U		11/10/2016 02:27	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.20	ug/L	0.20	0.60	5	U		11/10/2016 02:27	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.45	ug/L	0.45	1.5	5	U		11/10/2016 02:27	RLD	EPA 8260C
1,2-Dibromoethane	<0.35	ug/L	0.35	1.2	5	U		11/10/2016 02:27	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.20	ug/L	0.20	0.65	5	U		11/10/2016 02:27	RLD	EPA 8260C
1,2-Dichloroethane	<0.25	ug/L	0.25	0.90	5	U		11/10/2016 02:27	RLD	EPA 8260C
1,2-Dichloropropane	<0.35	ug/L	0.35	1.2	5	U		11/10/2016 02:27	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 798967 Sample Description:MW-12S

DNR License/Well #: 4189/020

Sampled: 11/01/2016 1310

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Volatile Organic Compounds 8260 Comments: Suspected methylene chloride laboratory contamination.										
1,3,5-Trimethylbenzene	<0.25	ug/L	0.25	0.80	5	U		11/10/2016 02:27	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.20	ug/L	0.20	0.65	5	U		11/10/2016 02:27	RLD	EPA 8260C
1,3-Dichloropropane	<0.20	ug/L	0.20	0.65	5	U		11/10/2016 02:27	RLD	EPA 8260C
1,4-Dichlorobenzene	<0.20	ug/L	0.20	0.65	5	U		11/10/2016 02:27	RLD	EPA 8260C
2,2-Dichloropropane	<0.25	ug/L	0.25	0.75	5	U		11/10/2016 02:27	RLD	EPA 8260C
2-Butanone	<2.5	ug/L	2.5	7.5	5	U		11/10/2016 02:27	RLD	EPA 8260C
2-Chlorotoluene	<0.15	ug/L	0.15	0.55	5	U		11/10/2016 02:27	RLD	EPA 8260C
2-Hexanone	<1.2	ug/L	1.2	4.1	5	U		11/10/2016 02:27	RLD	EPA 8260C
4-Chlorotoluene	<0.20	ug/L	0.20	0.60	5	U		11/10/2016 02:27	RLD	EPA 8260C
4-Methyl-2-pentanone	<1.2	ug/L	1.2	4.1	5	U		11/10/2016 02:27	RLD	EPA 8260C
Acetone	2.4	ug/L	1.5	5.0	5	J B		11/10/2016 02:27	RLD	EPA 8260C
Benzene	0.098	ug/L	0.090	0.30	5	J		11/10/2016 02:27	RLD	EPA 8260C
Bromobenzene	<0.20	ug/L	0.20	0.75	5	U		11/10/2016 02:27	RLD	EPA 8260C
Bromochloromethane	<0.15	ug/L	0.15	0.50	5	U		11/10/2016 02:27	RLD	EPA 8260C
Bromodichloromethane	<0.080	ug/L	0.080	0.27	5	U		11/10/2016 02:27	RLD	EPA 8260C
Bromoform	<0.20	ug/L	0.20	0.60	5	U		11/10/2016 02:27	RLD	EPA 8260C
Bromomethane	<0.40	ug/L	0.40	1.4	5	U Z		11/10/2016 02:27	RLD	EPA 8260C
Carbon disulfide	<0.35	ug/L	0.35	1.3	5	U		11/10/2016 02:27	RLD	EPA 8260C
Carbon tetrachloride	<0.25	ug/L	0.25	0.90	5	U		11/10/2016 02:27	RLD	EPA 8260C
Chlorobenzene	<0.20	ug/L	0.20	0.75	5	U		11/10/2016 02:27	RLD	EPA 8260C
Chloroethane	<0.35	ug/L	0.35	1.2	5	U		11/10/2016 02:27	RLD	EPA 8260C
Chloroform	<0.15	ug/L	0.15	0.55	5	U		11/10/2016 02:27	RLD	EPA 8260C
Chloromethane	<0.20	ug/L	0.20	0.65	5	U		11/10/2016 02:27	RLD	EPA 8260C
cis-1,2-Dichloroethene	20	ug/L	0.35	1.2	5			11/10/2016 02:27	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 798967 Sample Description: MW-12S

DNR License/Well #: 4189/020

Sampled: 11/01/2016 1310

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Volatile Organic Compounds 8260 Comments: Suspected methylene chloride laboratory contamination.										
cis-1,3-Dichloropropene	<0.055	ug/L	0.055	0.19	5	U		11/10/2016 02:27	RLD	EPA 8260C
Dibromochloromethane	<0.15	ug/L	0.15	0.50	5	U		11/10/2016 02:27	RLD	EPA 8260C
Dibromomethane	<0.25	ug/L	0.25	0.85	5	U		11/10/2016 02:27	RLD	EPA 8260C
Dichlorodifluoromethane	<0.30	ug/L	0.30	0.95	5	U		11/10/2016 02:27	RLD	EPA 8260C
Diisopropyl ether	<0.20	ug/L	0.20	0.70	5	U		11/10/2016 02:27	RLD	EPA 8260C
Ethylbenzene	<0.20	ug/L	0.20	0.75	5	U		11/10/2016 02:27	RLD	EPA 8260C
Hexachlorobutadiene	<0.25	ug/L	0.25	0.80	5	U		11/10/2016 02:27	RLD	EPA 8260C
Isopropylbenzene	<0.20	ug/L	0.20	0.60	5	U		11/10/2016 02:27	RLD	EPA 8260C
m & p-Xylene	<0.35	ug/L	0.35	1.2	5	U		11/10/2016 02:27	RLD	EPA 8260C
Methyl tert-butyl ether	<0.20	ug/L	0.20	0.60	5	U		11/10/2016 02:27	RLD	EPA 8260C
Methylene chloride	1.5	ug/L	0.25	0.80	5			11/10/2016 02:27	RLD	EPA 8260C
n-Butylbenzene	<0.15	ug/L	0.15	0.55	5	U		11/10/2016 02:27	RLD	EPA 8260C
n-Propylbenzene	<0.20	ug/L	0.20	0.65	5	U		11/10/2016 02:27	RLD	EPA 8260C
Naphthalene	<0.15	ug/L	0.15	0.50	5	U		11/10/2016 02:27	RLD	EPA 8260C
o-Xylene	<0.20	ug/L	0.20	0.70	5	U		11/10/2016 02:27	RLD	EPA 8260C
p-Isopropyltoluene	<0.20	ug/L	0.20	0.65	5	U		11/10/2016 02:27	RLD	EPA 8260C
sec-Butylbenzene	<0.25	ug/L	0.25	0.80	5	U		11/10/2016 02:27	RLD	EPA 8260C
Styrene	<0.15	ug/L	0.15	0.55	5	U		11/10/2016 02:27	RLD	EPA 8260C
tert-Butylbenzene	<0.20	ug/L	0.20	0.70	5	U		11/10/2016 02:27	RLD	EPA 8260C
Tetrachloroethene	<0.25	ug/L	0.25	0.90	5	U		11/10/2016 02:27	RLD	EPA 8260C
Tetrahydrofuran	<2.0	ug/L	2.0	7.5	5	U		11/10/2016 02:27	RLD	EPA 8260C
Toluene	<0.20	ug/L	0.20	0.65	5	U		11/10/2016 02:27	RLD	EPA 8260C
trans-1,2-Dichloroethene	7.0	ug/L	0.20	0.70	5			11/10/2016 02:27	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.095	ug/L	0.095	0.32	5	U		11/10/2016 02:27	RLD	EPA 8260C

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CT LAB#: 798967 Sample Description:MW-12S

DNR License/Well #: 4189/020

Sampled: 11/01/2016 1310

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Volatile Organic Compounds 8260 Comments: Suspected methylene chloride laboratory contamination.										
Trichloroethene	61	ug/L	0.25	0.85	5			11/10/2016 02:27	RLD	EPA 8260C
Trichlorofluoromethane	<0.45	ug/L	0.45	0.70	5	U		11/10/2016 02:27	RLD	EPA 8260C
Vinyl acetate	<1.1	ug/L	1.1	3.7	5	U		11/10/2016 02:27	RLD	EPA 8260C
Vinyl chloride	0.57	ug/L	0.095	0.32	5			11/10/2016 02:27	RLD	EPA 8260C
1,4-Dioxane	<35	ug/L	35	120	5	U		11/10/2016 02:27	RLD	EPA 8260C

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Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

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ISO/IEC 17025-2005 A2LA Cert # 3806.01
North Carolina ID# 674
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DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID E8711111, Expires Annually
Louisiana ID # 115843
Virginia ID# 7608
Illinois NELAP ID # 002413
Wisconsin (WOSB) ID# WI-5499-WBE
Maryland ID# 344

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase:
 Project #: 117-7413001.01
 Folder #: 123362
 Purchase Order #:
 Contract #: 2747

Page 1 of 2
 Arrival Temperature: 4.9
 Report Date: 11/30/2016
 Date Received: 11/02/2016
 Reprint Date: 11/30/2016

CT LAB#: 798968	Sample Description: MW-12S	DNR License/Well #: 4189/020	Sampled: 11/01/2016 1310
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Metals Results										
Dissolved Iron	<0.059	mg/L	0.059	0.20	1	U		11/05/2016 16:16	NAH	EPA 6010C
Dissolved Manganese	139	ug/L	2.2	7.3	1			11/05/2016 16:16	NAH	EPA 6010C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

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Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
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X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications
Kansas NELAP ID# E-10368
Kentucky ID# 0023
ISO/IEC 17025-2005 A2LA Cert # 3806.01
North Carolina ID# 674
Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID E8711111, Expires Annually
Louisiana ID # 115843
Virginia ID# 7608
Illinois NELAP ID # 002413
Wisconsin (WOSB) ID# WI-5499-WBE
Maryland ID# 344

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase:
 Project #: 117-7413001.01
 Folder #: 123362
 Purchase Order #:
 Contract #: 2747

Page 1 of 5
 Arrival Temperature: 4.9
 Report Date: 11/30/2016
 Date Received: 11/02/2016
 Reprint Date: 11/30/2016

CT LAB#: 798969	Sample Description: MW-12D	DNR License/Well #: 4189/021	Sampled: 11/01/2016 1340
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Field Results										
Dissolved Oxygen (Field)	0.39	mg/L	N/A	N/A	1			11/01/2016 00:00	BMS	
Depth to Groundwater (Field)	2.44	Feet	N/A	N/A	1			11/01/2016 00:00	BMS	
OX/REDOX (Field)	-92	MV	N/A	N/A	1			11/01/2016 00:00	BMS	
Color (Field)	CLEAR		N/A	N/A	1			11/01/2016 00:00	BMS	FIELD
Conductivity (Field)	1150	umhos/cm	N/A	N/A	1			11/01/2016 00:00	BMS	FIELD
Groundwater Elevation (Field)	845.87	Feet MSL	N/A	N/A	1			11/01/2016 00:00	BMS	FIELD
pH (Field)	6.98	S.U.	N/A	N/A	1			11/01/2016 00:00	BMS	FIELD
Temperature (Field)	9.37	Deg. C	N/A	N/A	1			11/01/2016 00:00	BMS	FIELD
Turbidity (Field)	CLEAR		N/A	N/A	1			11/01/2016 00:00	BMS	FIELD
Inorganic Results										
Alkalinity Total	410	mg/L	5.0	18	1			11/03/2016 16:03	LJS	EPA 310.2
Total Chloride	200	mg/L	2.8	9.6	4			11/02/2016 23:48	JJF	EPA 9056A
Total Sulfate	51	mg/L	4.0	13	4			11/02/2016 23:48	JJF	EPA 9056A
Total Organic Carbon	2.4	mg/L	0.50	1.7	1			11/07/2016 16:36	JJF	EPA 9060A
Metals Results										

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

The depth to groundwater and groundwater elevation results listed above are from a previous sampling round and therefore incorrect.

CT LAB#: 798969 Sample Description:MW-12D

DNR License/Well #: 4189/021

Sampled: 11/01/2016 1340

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Total Iron	2.53	mg/L	0.034	0.11	1		11/08/2016 15:00	11/09/2016 21:33	NAH	EPA 6010C
Total Manganese	40.3	ug/L	3.4	11	1		11/08/2016 15:00	11/09/2016 21:33	NAH	EPA 6010C
Organic Results										
Acetylene	<0.23	ug/L	0.23	0.77	1	U	11/10/2016 09:00	11/11/2016 09:35	agk	Mod RSK 175
Ethane	<0.40	ug/L	0.40	1.2	1	U	11/10/2016 09:00	11/11/2016 09:35	agk	Mod RSK 175
Ethene	<0.50	ug/L	0.50	1.8	1	U	11/10/2016 09:00	11/11/2016 09:35	agk	Mod RSK 175
Methane	2.9	ug/L	0.40	1.2	1		11/10/2016 09:00	11/11/2016 09:35	agk	Mod RSK 175
1,1,1,2-Tetrachloroethane	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 22:05	RLD	EPA 8260C
1,1,1-Trichloroethane	0.30	ug/L	0.050	0.17	1			11/09/2016 22:05	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.017	ug/L	0.017	0.057	1	U		11/09/2016 22:05	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.050	ug/L	0.050	0.16	1	U		11/09/2016 22:05	RLD	EPA 8260C
1,1-Dichloroethane	4.8	ug/L	0.060	0.19	1			11/09/2016 22:05	RLD	EPA 8260C
1,1-Dichloroethene	0.15	ug/L	0.060	0.20	1	J		11/09/2016 22:05	RLD	EPA 8260C
1,1-Dichloropropene	<0.060	ug/L	0.060	0.19	1	U		11/09/2016 22:05	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 22:05	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.040	ug/L	0.040	0.14	1	U		11/09/2016 22:05	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.040	ug/L	0.040	0.12	1	U		11/09/2016 22:05	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.040	ug/L	0.040	0.12	1	U		11/09/2016 22:05	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.090	ug/L	0.090	0.29	1	U		11/09/2016 22:05	RLD	EPA 8260C
1,2-Dibromoethane	<0.070	ug/L	0.070	0.23	1	U		11/09/2016 22:05	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 22:05	RLD	EPA 8260C
1,2-Dichloroethane	<0.050	ug/L	0.050	0.18	1	U		11/09/2016 22:05	RLD	EPA 8260C
1,2-Dichloropropane	<0.070	ug/L	0.070	0.23	1	U		11/09/2016 22:05	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<0.050	ug/L	0.050	0.16	1	U		11/09/2016 22:05	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 22:05	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 798969 Sample Description:MW-12D

DNR License/Well #: 4189/021

Sampled: 11/01/2016 1340

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,3-Dichloropropane	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 22:05	RLD	EPA 8260C
1,4-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 22:05	RLD	EPA 8260C
2,2-Dichloropropane	<0.050	ug/L	0.050	0.15	1	U		11/09/2016 22:05	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.5	1	U		11/09/2016 22:05	RLD	EPA 8260C
2-Chlorotoluene	<0.030	ug/L	0.030	0.11	1	U		11/09/2016 22:05	RLD	EPA 8260C
2-Hexanone	<0.24	ug/L	0.24	0.81	1	U		11/09/2016 22:05	RLD	EPA 8260C
4-Chlorotoluene	<0.040	ug/L	0.040	0.12	1	U		11/09/2016 22:05	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.24	ug/L	0.24	0.82	1	U		11/09/2016 22:05	RLD	EPA 8260C
Acetone	<0.30	ug/L	0.30	1.0	1	U		11/09/2016 22:05	RLD	EPA 8260C
Benzene	<0.018	ug/L	0.018	0.059	1	U		11/09/2016 22:05	RLD	EPA 8260C
Bromobenzene	<0.040	ug/L	0.040	0.15	1	U		11/09/2016 22:05	RLD	EPA 8260C
Bromochloromethane	<0.030	ug/L	0.030	0.099	1	U		11/09/2016 22:05	RLD	EPA 8260C
Bromodichloromethane	<0.016	ug/L	0.016	0.054	1	U		11/09/2016 22:05	RLD	EPA 8260C
Bromoform	<0.040	ug/L	0.040	0.12	1	U		11/09/2016 22:05	RLD	EPA 8260C
Bromomethane	<0.080	ug/L	0.080	0.28	1	U Z		11/09/2016 22:05	RLD	EPA 8260C
Carbon disulfide	<0.070	ug/L	0.070	0.25	1	U		11/09/2016 22:05	RLD	EPA 8260C
Carbon tetrachloride	<0.050	ug/L	0.050	0.18	1	U		11/09/2016 22:05	RLD	EPA 8260C
Chlorobenzene	<0.040	ug/L	0.040	0.15	1	U		11/09/2016 22:05	RLD	EPA 8260C
Chloroethane	<0.070	ug/L	0.070	0.23	1	U		11/09/2016 22:05	RLD	EPA 8260C
Chloroform	<0.030	ug/L	0.030	0.11	1	U		11/09/2016 22:05	RLD	EPA 8260C
Chloromethane	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 22:05	RLD	EPA 8260C
cis-1,2-Dichloroethene	5.3	ug/L	0.070	0.23	1			11/09/2016 22:05	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.011	ug/L	0.011	0.038	1	U		11/09/2016 22:05	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1	U		11/09/2016 22:05	RLD	EPA 8260C
Dibromomethane	<0.050	ug/L	0.050	0.17	1	U		11/09/2016 22:05	RLD	EPA 8260C
Dichlorodifluoromethane	<0.060	ug/L	0.060	0.19	1	U		11/09/2016 22:05	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 798969 Sample Description:MW-12D

DNR License/Well #: 4189/021

Sampled: 11/01/2016 1340

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Diisopropyl ether	<0.040	ug/L	0.040	0.14	1	U		11/09/2016 22:05	RLD	EPA 8260C
Ethylbenzene	<0.040	ug/L	0.040	0.15	1	U		11/09/2016 22:05	RLD	EPA 8260C
Hexachlorobutadiene	<0.050	ug/L	0.050	0.16	1	U		11/09/2016 22:05	RLD	EPA 8260C
Isopropylbenzene	<0.040	ug/L	0.040	0.12	1	U		11/09/2016 22:05	RLD	EPA 8260C
m & p-Xylene	<0.070	ug/L	0.070	0.23	1	U		11/09/2016 22:05	RLD	EPA 8260C
Methyl tert-butyl ether	0.58	ug/L	0.040	0.12	1			11/09/2016 22:05	RLD	EPA 8260C
Methylene chloride	<0.050	ug/L	0.050	0.16	1	U		11/09/2016 22:05	RLD	EPA 8260C
n-Butylbenzene	<0.030	ug/L	0.030	0.11	1	U		11/09/2016 22:05	RLD	EPA 8260C
n-Propylbenzene	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 22:05	RLD	EPA 8260C
Naphthalene	<0.030	ug/L	0.030	0.10	1	U		11/09/2016 22:05	RLD	EPA 8260C
o-Xylene	<0.040	ug/L	0.040	0.14	1	U		11/09/2016 22:05	RLD	EPA 8260C
p-Isopropyltoluene	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 22:05	RLD	EPA 8260C
sec-Butylbenzene	<0.050	ug/L	0.050	0.16	1	U		11/09/2016 22:05	RLD	EPA 8260C
Styrene	<0.030	ug/L	0.030	0.11	1	U		11/09/2016 22:05	RLD	EPA 8260C
tert-Butylbenzene	<0.040	ug/L	0.040	0.14	1	U		11/09/2016 22:05	RLD	EPA 8260C
Tetrachloroethene	<0.050	ug/L	0.050	0.18	1	U		11/09/2016 22:05	RLD	EPA 8260C
Tetrahydrofuran	<0.40	ug/L	0.40	1.5	1	U		11/09/2016 22:05	RLD	EPA 8260C
Toluene	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 22:05	RLD	EPA 8260C
trans-1,2-Dichloroethene	0.44	ug/L	0.040	0.14	1			11/09/2016 22:05	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.019	ug/L	0.019	0.063	1	U		11/09/2016 22:05	RLD	EPA 8260C
Trichloroethene	0.10	ug/L	0.050	0.17	1	J		11/09/2016 22:05	RLD	EPA 8260C
Trichlorofluoromethane	<0.090	ug/L	0.090	0.14	1	U		11/09/2016 22:05	RLD	EPA 8260C
Vinyl acetate	<0.22	ug/L	0.22	0.73	1	U		11/09/2016 22:05	RLD	EPA 8260C
Vinyl chloride	0.62	ug/L	0.019	0.064	1			11/09/2016 22:05	RLD	EPA 8260C
1,4-Dioxane	<7.0	ug/L	7.0	23	1	U		11/09/2016 22:05	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications
Kansas NELAP ID# E-10368
Kentucky ID# 0023
ISO/IEC 17025-2005 A2LA Cert # 3806.01
North Carolina ID# 674
Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID E871111, Expires Annually
Louisiana ID # 115843
Virginia ID# 7608
Illinois NELAP ID # 002413
Wisconsin (WOSB) ID# WI-5499-WBE
Maryland ID# 344

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase:
 Project #: 117-7413001.01
 Folder #: 123362
 Purchase Order #:
 Contract #: 2747

Page 1 of 2
 Arrival Temperature: 4.9
 Report Date: 11/30/2016
 Date Received: 11/02/2016
 Reprint Date: 11/30/2016

CT LAB#: 798970	Sample Description: MW-12D	DNR License/Well #: 4189/021	Sampled: 11/01/2016 1340
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Metals Results										
Dissolved Iron	0.919	mg/L	0.059	0.20	1		11/05/2016 16:23	11/05/2016 16:23	NAH	EPA 6010C
Dissolved Manganese	35.5	ug/L	2.2	7.3	1		11/05/2016 16:23	11/05/2016 16:23	NAH	EPA 6010C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications
Kansas NELAP ID# E-10368
Kentucky ID# 0023
ISO/IEC 17025-2005 A2LA Cert # 3806.01
North Carolina ID# 674
Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID E871111, Expires Annually
Louisiana ID # 115843
Virginia ID# 7608
Illinois NELAP ID # 002413
Wisconsin (WOSB) ID# WI-5499-WBE
Maryland ID# 344

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase:
 Project #: 117-7413001.01
 Folder #: 123362
 Purchase Order #:
 Contract #: 2747

Page 1 of 5
 Arrival Temperature: 4.9
 Report Date: 11/30/2016
 Date Received: 11/02/2016
 Reprint Date: 11/30/2016

CT LAB#: 798995	Sample Description: MW-12B	DNR License/Well #: 4189/022	Sampled: 11/01/2016 1420
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Field Results										
Dissolved Oxygen (Field)	0.79	mg/L	N/A	N/A	1			11/01/2016 00:00	BMS	
Depth to Groundwater (Field)	3.37	Feet	N/A	N/A	1			11/01/2016 00:00	BMS	
OX/REDOX (Field)	-190	MV	N/A	N/A	1			11/01/2016 00:00	BMS	
Color (Field)	CLEAR		N/A	N/A	1			11/01/2016 00:00	BMS	FIELD
Conductivity (Field)	879	umhos/cm	N/A	N/A	1			11/01/2016 00:00	BMS	FIELD
Groundwater Elevation (Field)	846.03	Feet MSL	N/A	N/A	1			11/01/2016 00:00	BMS	FIELD
pH (Field)	7.77	S.U.	N/A	N/A	1			11/01/2016 00:00	BMS	FIELD
Temperature (Field)	9.29	Deg. C	N/A	N/A	1			11/01/2016 00:00	BMS	FIELD
Turbidity (Field)	CLEAR		N/A	N/A	1			11/01/2016 00:00	BMS	FIELD
Inorganic Results										
Alkalinity Total	340	mg/L	5.0	18	1			11/03/2016 16:04	LJS	EPA 310.2
Total Chloride	140	mg/L	2.1	7.2	3			11/03/2016 00:09	JJF	EPA 9056A
Total Sulfate	30	mg/L	3.0	9.6	3			11/03/2016 00:09	JJF	EPA 9056A
Total Organic Carbon	1.0	mg/L	0.50	1.7	1	J		11/07/2016 16:48	JJF	EPA 9060A
Metals Results										

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

The depth to groundwater and groundwater elevation results listed above are from a previous sampling round and therefore incorrect.

CT LAB#: 798995 Sample Description:MW-12B

DNR License/Well #: 4189/022

Sampled: 11/01/2016 1420

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Total Iron	0.394	mg/L	0.034	0.11	1		11/08/2016 15:00	11/09/2016 21:41	NAH	EPA 6010C
Total Manganese	19.5	ug/L	3.4	11	1		11/08/2016 15:00	11/09/2016 21:41	NAH	EPA 6010C
Organic Results										
Acetylene	<0.23	ug/L	0.23	0.77	1	U	11/10/2016 09:00	11/11/2016 09:44	agk	Mod RSK 175
Ethane	<0.40	ug/L	0.40	1.2	1	U	11/10/2016 09:00	11/11/2016 09:44	agk	Mod RSK 175
Ethene	<0.50	ug/L	0.50	1.8	1	U	11/10/2016 09:00	11/11/2016 09:44	agk	Mod RSK 175
Methane	12	ug/L	0.40	1.2	1		11/10/2016 09:00	11/11/2016 09:44	agk	Mod RSK 175
1,1,1,2-Tetrachloroethane	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 22:34	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.050	ug/L	0.050	0.17	1	U		11/09/2016 22:34	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.017	ug/L	0.017	0.057	1	U		11/09/2016 22:34	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.050	ug/L	0.050	0.16	1	U		11/09/2016 22:34	RLD	EPA 8260C
1,1-Dichloroethane	<0.060	ug/L	0.060	0.19	1	U		11/09/2016 22:34	RLD	EPA 8260C
1,1-Dichloroethene	<0.060	ug/L	0.060	0.20	1	U		11/09/2016 22:34	RLD	EPA 8260C
1,1-Dichloropropene	<0.060	ug/L	0.060	0.19	1	U		11/09/2016 22:34	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 22:34	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.040	ug/L	0.040	0.14	1	U		11/09/2016 22:34	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.040	ug/L	0.040	0.12	1	U		11/09/2016 22:34	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.040	ug/L	0.040	0.12	1	U		11/09/2016 22:34	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.090	ug/L	0.090	0.29	1	U		11/09/2016 22:34	RLD	EPA 8260C
1,2-Dibromoethane	<0.070	ug/L	0.070	0.23	1	U		11/09/2016 22:34	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 22:34	RLD	EPA 8260C
1,2-Dichloroethane	<0.050	ug/L	0.050	0.18	1	U		11/09/2016 22:34	RLD	EPA 8260C
1,2-Dichloropropane	<0.070	ug/L	0.070	0.23	1	U		11/09/2016 22:34	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<0.050	ug/L	0.050	0.16	1	U		11/09/2016 22:34	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 22:34	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 798995 Sample Description:MW-12B

DNR License/Well #: 4189/022

Sampled: 11/01/2016 1420

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,3-Dichloropropane	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 22:34	RLD	EPA 8260C
1,4-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 22:34	RLD	EPA 8260C
2,2-Dichloropropane	<0.050	ug/L	0.050	0.15	1	U		11/09/2016 22:34	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.5	1	U		11/09/2016 22:34	RLD	EPA 8260C
2-Chlorotoluene	<0.030	ug/L	0.030	0.11	1	U		11/09/2016 22:34	RLD	EPA 8260C
2-Hexanone	<0.24	ug/L	0.24	0.81	1	U		11/09/2016 22:34	RLD	EPA 8260C
4-Chlorotoluene	<0.040	ug/L	0.040	0.12	1	U		11/09/2016 22:34	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.24	ug/L	0.24	0.82	1	U		11/09/2016 22:34	RLD	EPA 8260C
Acetone	<0.30	ug/L	0.30	1.0	1	U		11/09/2016 22:34	RLD	EPA 8260C
Benzene	<0.018	ug/L	0.018	0.059	1	U		11/09/2016 22:34	RLD	EPA 8260C
Bromobenzene	<0.040	ug/L	0.040	0.15	1	U		11/09/2016 22:34	RLD	EPA 8260C
Bromochloromethane	<0.030	ug/L	0.030	0.099	1	U		11/09/2016 22:34	RLD	EPA 8260C
Bromodichloromethane	<0.016	ug/L	0.016	0.054	1	U		11/09/2016 22:34	RLD	EPA 8260C
Bromoform	<0.040	ug/L	0.040	0.12	1	U		11/09/2016 22:34	RLD	EPA 8260C
Bromomethane	<0.080	ug/L	0.080	0.28	1	U Z		11/09/2016 22:34	RLD	EPA 8260C
Carbon disulfide	<0.070	ug/L	0.070	0.25	1	U		11/09/2016 22:34	RLD	EPA 8260C
Carbon tetrachloride	<0.050	ug/L	0.050	0.18	1	U		11/09/2016 22:34	RLD	EPA 8260C
Chlorobenzene	<0.040	ug/L	0.040	0.15	1	U		11/09/2016 22:34	RLD	EPA 8260C
Chloroethane	<0.070	ug/L	0.070	0.23	1	U		11/09/2016 22:34	RLD	EPA 8260C
Chloroform	<0.030	ug/L	0.030	0.11	1	U		11/09/2016 22:34	RLD	EPA 8260C
Chloromethane	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 22:34	RLD	EPA 8260C
cis-1,2-Dichloroethene	<0.070	ug/L	0.070	0.23	1	U		11/09/2016 22:34	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.011	ug/L	0.011	0.038	1	U		11/09/2016 22:34	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1	U		11/09/2016 22:34	RLD	EPA 8260C
Dibromomethane	<0.050	ug/L	0.050	0.17	1	U		11/09/2016 22:34	RLD	EPA 8260C
Dichlorodifluoromethane	<0.060	ug/L	0.060	0.19	1	U		11/09/2016 22:34	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 798995 Sample Description:MW-12B

DNR License/Well #: 4189/022

Sampled: 11/01/2016 1420

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Diisopropyl ether	<0.040	ug/L	0.040	0.14	1	U	11/09/2016 22:34	11/09/2016 22:34	RLD	EPA 8260C
Ethylbenzene	<0.040	ug/L	0.040	0.15	1	U	11/09/2016 22:34	11/09/2016 22:34	RLD	EPA 8260C
Hexachlorobutadiene	<0.050	ug/L	0.050	0.16	1	U	11/09/2016 22:34	11/09/2016 22:34	RLD	EPA 8260C
Isopropylbenzene	<0.040	ug/L	0.040	0.12	1	U	11/09/2016 22:34	11/09/2016 22:34	RLD	EPA 8260C
m & p-Xylene	<0.070	ug/L	0.070	0.23	1	U	11/09/2016 22:34	11/09/2016 22:34	RLD	EPA 8260C
Methyl tert-butyl ether	<0.040	ug/L	0.040	0.12	1	U	11/09/2016 22:34	11/09/2016 22:34	RLD	EPA 8260C
Methylene chloride	<0.050	ug/L	0.050	0.16	1	U	11/09/2016 22:34	11/09/2016 22:34	RLD	EPA 8260C
n-Butylbenzene	<0.030	ug/L	0.030	0.11	1	U	11/09/2016 22:34	11/09/2016 22:34	RLD	EPA 8260C
n-Propylbenzene	<0.040	ug/L	0.040	0.13	1	U	11/09/2016 22:34	11/09/2016 22:34	RLD	EPA 8260C
Naphthalene	<0.030	ug/L	0.030	0.10	1	U	11/09/2016 22:34	11/09/2016 22:34	RLD	EPA 8260C
o-Xylene	<0.040	ug/L	0.040	0.14	1	U	11/09/2016 22:34	11/09/2016 22:34	RLD	EPA 8260C
p-Isopropyltoluene	<0.040	ug/L	0.040	0.13	1	U	11/09/2016 22:34	11/09/2016 22:34	RLD	EPA 8260C
sec-Butylbenzene	<0.050	ug/L	0.050	0.16	1	U	11/09/2016 22:34	11/09/2016 22:34	RLD	EPA 8260C
Styrene	<0.030	ug/L	0.030	0.11	1	U	11/09/2016 22:34	11/09/2016 22:34	RLD	EPA 8260C
tert-Butylbenzene	<0.040	ug/L	0.040	0.14	1	U	11/09/2016 22:34	11/09/2016 22:34	RLD	EPA 8260C
Tetrachloroethene	<0.050	ug/L	0.050	0.18	1	U	11/09/2016 22:34	11/09/2016 22:34	RLD	EPA 8260C
Tetrahydrofuran	<0.40	ug/L	0.40	1.5	1	U	11/09/2016 22:34	11/09/2016 22:34	RLD	EPA 8260C
Toluene	<0.040	ug/L	0.040	0.13	1	U	11/09/2016 22:34	11/09/2016 22:34	RLD	EPA 8260C
trans-1,2-Dichloroethene	<0.040	ug/L	0.040	0.14	1	U	11/09/2016 22:34	11/09/2016 22:34	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.019	ug/L	0.019	0.063	1	U	11/09/2016 22:34	11/09/2016 22:34	RLD	EPA 8260C
Trichloroethene	<0.050	ug/L	0.050	0.17	1	U	11/09/2016 22:34	11/09/2016 22:34	RLD	EPA 8260C
Trichlorofluoromethane	<0.090	ug/L	0.090	0.14	1	U	11/09/2016 22:34	11/09/2016 22:34	RLD	EPA 8260C
Vinyl acetate	<0.22	ug/L	0.22	0.73	1	U	11/09/2016 22:34	11/09/2016 22:34	RLD	EPA 8260C
Vinyl chloride	<0.019	ug/L	0.019	0.064	1	U	11/09/2016 22:34	11/09/2016 22:34	RLD	EPA 8260C
1,4-Dioxane	<7.0	ug/L	7.0	23	1	U	11/09/2016 22:34	11/09/2016 22:34	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications
Kansas NELAP ID# E-10368
Kentucky ID# 0023
ISO/IEC 17025-2005 A2LA Cert # 3806.01
North Carolina ID# 674
Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID E8711111, Expires Annually
Louisiana ID # 115843
Virginia ID# 7608
Illinois NELAP ID # 002413
Wisconsin (WOSB) ID# WI-5499-WBE
Maryland ID# 344

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase:
 Project #: 117-7413001.01
 Folder #: 123362
 Purchase Order #:
 Contract #: 2747

Page 1 of 2
 Arrival Temperature: 4.9
 Report Date: 11/30/2016
 Date Received: 11/02/2016
 Reprint Date: 11/30/2016

CT LAB#: 798996	Sample Description: MW-12B	DNR License/Well #: 4189/022	Sampled: 11/01/2016 1420
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Metals Results										
Dissolved Iron	0.385	mg/L	0.059	0.20	1		11/05/2016 16:30	11/05/2016 16:30	NAH	EPA 6010C
Dissolved Manganese	20.6	ug/L	2.2	7.3	1		11/05/2016 16:30	11/05/2016 16:30	NAH	EPA 6010C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications
Kansas NELAP ID# E-10368
Kentucky ID# 0023
ISO/IEC 17025-2005 A2LA Cert # 3806.01
North Carolina ID# 674
Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID E871111, Expires Annually
Louisiana ID # 115843
Virginia ID# 7608
Illinois NELAP ID # 002413
Wisconsin (WOSB) ID# WI-5499-WBE
Maryland ID# 344

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase:
 Project #: 117-7413001.01
 Folder #: 123362
 Purchase Order #:
 Contract #: 2747

Page 1 of 5
 Arrival Temperature: 4.9
 Report Date: 11/30/2016
 Date Received: 11/02/2016
 Reprint Date: 11/30/2016

CT LAB#: 798997	Sample Description: MW-13D	DNR License/Well #: 4189/032	Sampled: 11/01/2016 1505
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Field Results										
Dissolved Oxygen (Field)	0.19	mg/L	N/A	N/A	1			11/01/2016 00:00	BMS	
Depth to Groundwater (Field)	4.20	Feet	N/A	N/A	1			11/01/2016 00:00	BMS	
OX/REDOX (Field)	-83	MV	N/A	N/A	1			11/01/2016 00:00	BMS	
Color (Field)	CLEAR		N/A	N/A	1			11/01/2016 00:00	BMS	FIELD
Conductivity (Field)	1070	umhos/cm	N/A	N/A	1			11/01/2016 00:00	BMS	FIELD
Groundwater Elevation (Field)	845.82	Feet MSL	N/A	N/A	1			11/01/2016 00:00	BMS	FIELD
pH (Field)	7.05	S.U.	N/A	N/A	1			11/01/2016 00:00	BMS	FIELD
Temperature (Field)	8.58	Deg. C	N/A	N/A	1			11/01/2016 00:00	BMS	FIELD
Turbidity (Field)	YES		N/A	N/A	1			11/01/2016 00:00	BMS	FIELD
Inorganic Results										
Alkalinity Total	380	mg/L	5.0	18	1			11/03/2016 16:05	LJS	EPA 310.2
Total Chloride	170	mg/L	2.1	7.2	3			11/03/2016 00:30	JJF	EPA 9056A
Total Sulfate	46	mg/L	3.0	9.6	3			11/03/2016 00:30	JJF	EPA 9056A
Total Organic Carbon	1.6	mg/L	0.50	1.7	1	J		11/07/2016 16:59	JJF	EPA 9060A
Metals Results										

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

The depth to groundwater and groundwater elevation results listed above are from a previous sampling round and therefore incorrect.

CT LAB#: 798997 Sample Description:MW-13D

DNR License/Well #: 4189/032

Sampled: 11/01/2016 1505

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Total Iron	1.42	mg/L	0.034	0.11	1		11/08/2016 15:00	11/09/2016 21:48	NAH	EPA 6010C
Total Manganese	33.0	ug/L	3.4	11	1		11/08/2016 15:00	11/09/2016 21:48	NAH	EPA 6010C
Organic Results										
Acetylene	<0.23	ug/L	0.23	0.77	1	U	11/10/2016 09:00	11/11/2016 09:53	agk	Mod RSK 175
Ethane	<0.40	ug/L	0.40	1.2	1	U	11/10/2016 09:00	11/11/2016 09:53	agk	Mod RSK 175
Ethene	<0.50	ug/L	0.50	1.8	1	U	11/10/2016 09:00	11/11/2016 09:53	agk	Mod RSK 175
Methane	24	ug/L	0.80	2.4	2		11/10/2016 09:00	11/11/2016 10:02	AGK	Mod RSK 175
1,1,1,2-Tetrachloroethane	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 23:03	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.050	ug/L	0.050	0.17	1	U		11/09/2016 23:03	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.017	ug/L	0.017	0.057	1	U		11/09/2016 23:03	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.050	ug/L	0.050	0.16	1	U		11/09/2016 23:03	RLD	EPA 8260C
1,1-Dichloroethane	<0.060	ug/L	0.060	0.19	1	U		11/09/2016 23:03	RLD	EPA 8260C
1,1-Dichloroethene	<0.060	ug/L	0.060	0.20	1	U		11/09/2016 23:03	RLD	EPA 8260C
1,1-Dichloropropene	<0.060	ug/L	0.060	0.19	1	U		11/09/2016 23:03	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 23:03	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.040	ug/L	0.040	0.14	1	U		11/09/2016 23:03	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.040	ug/L	0.040	0.12	1	U		11/09/2016 23:03	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.040	ug/L	0.040	0.12	1	U		11/09/2016 23:03	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.090	ug/L	0.090	0.29	1	U		11/09/2016 23:03	RLD	EPA 8260C
1,2-Dibromoethane	<0.070	ug/L	0.070	0.23	1	U		11/09/2016 23:03	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 23:03	RLD	EPA 8260C
1,2-Dichloroethane	<0.050	ug/L	0.050	0.18	1	U		11/09/2016 23:03	RLD	EPA 8260C
1,2-Dichloropropane	<0.070	ug/L	0.070	0.23	1	U		11/09/2016 23:03	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<0.050	ug/L	0.050	0.16	1	U		11/09/2016 23:03	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 23:03	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 798997 Sample Description:MW-13D

DNR License/Well #: 4189/032

Sampled: 11/01/2016 1505

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,3-Dichloropropane	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 23:03	RLD	EPA 8260C
1,4-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 23:03	RLD	EPA 8260C
2,2-Dichloropropane	<0.050	ug/L	0.050	0.15	1	U		11/09/2016 23:03	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.5	1	U		11/09/2016 23:03	RLD	EPA 8260C
2-Chlorotoluene	<0.030	ug/L	0.030	0.11	1	U		11/09/2016 23:03	RLD	EPA 8260C
2-Hexanone	<0.24	ug/L	0.24	0.81	1	U		11/09/2016 23:03	RLD	EPA 8260C
4-Chlorotoluene	<0.040	ug/L	0.040	0.12	1	U		11/09/2016 23:03	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.24	ug/L	0.24	0.82	1	U		11/09/2016 23:03	RLD	EPA 8260C
Acetone	<0.30	ug/L	0.30	1.0	1	U		11/09/2016 23:03	RLD	EPA 8260C
Benzene	<0.018	ug/L	0.018	0.059	1	U		11/09/2016 23:03	RLD	EPA 8260C
Bromobenzene	<0.040	ug/L	0.040	0.15	1	U		11/09/2016 23:03	RLD	EPA 8260C
Bromochloromethane	<0.030	ug/L	0.030	0.099	1	U		11/09/2016 23:03	RLD	EPA 8260C
Bromodichloromethane	<0.016	ug/L	0.016	0.054	1	U		11/09/2016 23:03	RLD	EPA 8260C
Bromoform	<0.040	ug/L	0.040	0.12	1	U		11/09/2016 23:03	RLD	EPA 8260C
Bromomethane	<0.080	ug/L	0.080	0.28	1	U Z		11/09/2016 23:03	RLD	EPA 8260C
Carbon disulfide	<0.070	ug/L	0.070	0.25	1	U		11/09/2016 23:03	RLD	EPA 8260C
Carbon tetrachloride	<0.050	ug/L	0.050	0.18	1	U		11/09/2016 23:03	RLD	EPA 8260C
Chlorobenzene	<0.040	ug/L	0.040	0.15	1	U		11/09/2016 23:03	RLD	EPA 8260C
Chloroethane	<0.070	ug/L	0.070	0.23	1	U		11/09/2016 23:03	RLD	EPA 8260C
Chloroform	<0.030	ug/L	0.030	0.11	1	U		11/09/2016 23:03	RLD	EPA 8260C
Chloromethane	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 23:03	RLD	EPA 8260C
cis-1,2-Dichloroethene	1.7	ug/L	0.070	0.23	1			11/09/2016 23:03	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.011	ug/L	0.011	0.038	1	U		11/09/2016 23:03	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1	U		11/09/2016 23:03	RLD	EPA 8260C
Dibromomethane	<0.050	ug/L	0.050	0.17	1	U		11/09/2016 23:03	RLD	EPA 8260C
Dichlorodifluoromethane	<0.060	ug/L	0.060	0.19	1	U		11/09/2016 23:03	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 798997 Sample Description:MW-13D

DNR License/Well #: 4189/032

Sampled: 11/01/2016 1505

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Diisopropyl ether	<0.040	ug/L	0.040	0.14	1	U		11/09/2016 23:03	RLD	EPA 8260C
Ethylbenzene	<0.040	ug/L	0.040	0.15	1	U		11/09/2016 23:03	RLD	EPA 8260C
Hexachlorobutadiene	<0.050	ug/L	0.050	0.16	1	U		11/09/2016 23:03	RLD	EPA 8260C
Isopropylbenzene	<0.040	ug/L	0.040	0.12	1	U		11/09/2016 23:03	RLD	EPA 8260C
m & p-Xylene	<0.070	ug/L	0.070	0.23	1	U		11/09/2016 23:03	RLD	EPA 8260C
Methyl tert-butyl ether	0.52	ug/L	0.040	0.12	1			11/09/2016 23:03	RLD	EPA 8260C
Methylene chloride	<0.050	ug/L	0.050	0.16	1	U		11/09/2016 23:03	RLD	EPA 8260C
n-Butylbenzene	<0.030	ug/L	0.030	0.11	1	U		11/09/2016 23:03	RLD	EPA 8260C
n-Propylbenzene	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 23:03	RLD	EPA 8260C
Naphthalene	<0.030	ug/L	0.030	0.10	1	U		11/09/2016 23:03	RLD	EPA 8260C
o-Xylene	<0.040	ug/L	0.040	0.14	1	U		11/09/2016 23:03	RLD	EPA 8260C
p-Isopropyltoluene	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 23:03	RLD	EPA 8260C
sec-Butylbenzene	<0.050	ug/L	0.050	0.16	1	U		11/09/2016 23:03	RLD	EPA 8260C
Styrene	<0.030	ug/L	0.030	0.11	1	U		11/09/2016 23:03	RLD	EPA 8260C
tert-Butylbenzene	<0.040	ug/L	0.040	0.14	1	U		11/09/2016 23:03	RLD	EPA 8260C
Tetrachloroethene	<0.050	ug/L	0.050	0.18	1	U		11/09/2016 23:03	RLD	EPA 8260C
Tetrahydrofuran	<0.40	ug/L	0.40	1.5	1	U		11/09/2016 23:03	RLD	EPA 8260C
Toluene	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 23:03	RLD	EPA 8260C
trans-1,2-Dichloroethene	0.064	ug/L	0.040	0.14	1	J		11/09/2016 23:03	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.019	ug/L	0.019	0.063	1	U		11/09/2016 23:03	RLD	EPA 8260C
Trichloroethene	<0.050	ug/L	0.050	0.17	1	U		11/09/2016 23:03	RLD	EPA 8260C
Trichlorofluoromethane	<0.090	ug/L	0.090	0.14	1	U		11/09/2016 23:03	RLD	EPA 8260C
Vinyl acetate	<0.22	ug/L	0.22	0.73	1	U		11/09/2016 23:03	RLD	EPA 8260C
Vinyl chloride	0.035	ug/L	0.019	0.064	1	J		11/09/2016 23:03	RLD	EPA 8260C
1,4-Dioxane	<7.0	ug/L	7.0	23	1	U		11/09/2016 23:03	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications
Kansas NELAP ID# E-10368
Kentucky ID# 0023
ISO/IEC 17025-2005 A2LA Cert # 3806.01
North Carolina ID# 674
Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID E871111, Expires Annually
Louisiana ID # 115843
Virginia ID# 7608
Illinois NELAP ID # 002413
Wisconsin (WOSB) ID# WI-5499-WBE
Maryland ID# 344

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase:
 Project #: 117-7413001.01
 Folder #: 123362
 Purchase Order #:
 Contract #: 2747

Page 1 of 2
 Arrival Temperature: 4.9
 Report Date: 11/30/2016
 Date Received: 11/02/2016
 Reprint Date: 11/30/2016

CT LAB#: 798998	Sample Description: MW-13D	DNR License/Well #: 4189/032	Sampled: 11/01/2016 1505
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Metals Results										
Dissolved Iron	0.753	mg/L	0.059	0.20	1		11/05/2016 16:38	11/05/2016 16:38	NAH	EPA 6010C
Dissolved Manganese	31.9	ug/L	2.2	7.3	1		11/05/2016 16:38	11/05/2016 16:38	NAH	EPA 6010C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications
Kansas NELAP ID# E-10368
Kentucky ID# 0023
ISO/IEC 17025-2005 A2LA Cert # 3806.01
North Carolina ID# 674
Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID E8711111, Expires Annually
Louisiana ID # 115843
Virginia ID# 7608
Illinois NELAP ID # 002413
Wisconsin (WOSB) ID# WI-5499-WBE
Maryland ID# 344

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase:
 Project #: 117-7413001.01
 Folder #: 123362
 Purchase Order #:
 Contract #: 2747

Page 1 of 5
 Arrival Temperature: 4.9
 Report Date: 11/30/2016
 Date Received: 11/02/2016
 Reprint Date: 11/30/2016

CT LAB#: 798999	Sample Description: MW-13S	DNR License/Well #: 4189/023	Sampled: 11/01/2016 1545
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Field Results										
Dissolved Oxygen (Field)	4.08	mg/L	N/A	N/A	1			11/01/2016 00:00	BMS	
Depth to Groundwater (Field)	5.16	Feet	N/A	N/A	1			11/01/2016 00:00	BMS	
OX/REDOX (Field)	126	MV	N/A	N/A	1			11/01/2016 00:00	BMS	
Color (Field)	CLEAR		N/A	N/A	1			11/01/2016 00:00	BMS	FIELD
Conductivity (Field)	755	umhos/cm	N/A	N/A	1			11/01/2016 00:00	BMS	FIELD
Groundwater Elevation (Field)	845.75	Feet MSL	N/A	N/A	1			11/01/2016 00:00	BMS	FIELD
pH (Field)	6.74	S.U.	N/A	N/A	1			11/01/2016 00:00	BMS	FIELD
Temperature (Field)	12.90	Deg. C	N/A	N/A	1			11/01/2016 00:00	BMS	FIELD
Turbidity (Field)	YES		N/A	N/A	1			11/01/2016 00:00	BMS	FIELD
Inorganic Results										
Alkalinity Total	330	mg/L	5.0	18	1			11/03/2016 16:06	LJS	EPA 310.2
Total Chloride	130	mg/L	1.4	4.8	2			11/03/2016 00:50	JJF	EPA 9056A
Total Sulfate	17	mg/L	2.0	6.4	2			11/03/2016 00:50	JJF	EPA 9056A
Total Organic Carbon	1.6	mg/L	0.50	1.7	1	J		11/07/2016 17:11	JJF	EPA 9060A
Metals Results										

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

The depth to groundwater and groundwater elevation results listed above are from a previous sampling round and therefore incorrect.

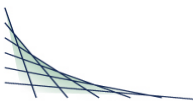
CT LAB#: 798999 Sample Description:MW-13S

DNR License/Well #: 4189/023

Sampled: 11/01/2016 1545

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Total Iron	5.16	mg/L	0.034	0.11	1		11/08/2016 15:00	11/09/2016 21:56	NAH	EPA 6010C
Total Manganese	62.0	ug/L	3.4	11	1		11/08/2016 15:00	11/09/2016 21:56	NAH	EPA 6010C
Organic Results										
Acetylene	<0.23	ug/L	0.23	0.77	1	U	11/10/2016 09:00	11/11/2016 10:13	agk	Mod RSK 175
Ethane	<0.40	ug/L	0.40	1.2	1	U	11/10/2016 09:00	11/11/2016 10:13	agk	Mod RSK 175
Ethene	<0.50	ug/L	0.50	1.8	1	U	11/10/2016 09:00	11/11/2016 10:13	agk	Mod RSK 175
Methane	0.43	ug/L	0.40	1.2	1	J	11/10/2016 09:00	11/11/2016 10:13	agk	Mod RSK 175
1,1,1,2-Tetrachloroethane	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 23:33	RLD	EPA 8260C
1,1,1-Trichloroethane	0.11	ug/L	0.050	0.17	1	J		11/09/2016 23:33	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.017	ug/L	0.017	0.057	1	U		11/09/2016 23:33	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.050	ug/L	0.050	0.16	1	U		11/09/2016 23:33	RLD	EPA 8260C
1,1-Dichloroethane	0.072	ug/L	0.060	0.19	1	J		11/09/2016 23:33	RLD	EPA 8260C
1,1-Dichloroethene	<0.060	ug/L	0.060	0.20	1	U		11/09/2016 23:33	RLD	EPA 8260C
1,1-Dichloropropene	<0.060	ug/L	0.060	0.19	1	U		11/09/2016 23:33	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 23:33	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.040	ug/L	0.040	0.14	1	U		11/09/2016 23:33	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.040	ug/L	0.040	0.12	1	U		11/09/2016 23:33	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.040	ug/L	0.040	0.12	1	U		11/09/2016 23:33	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.090	ug/L	0.090	0.29	1	U		11/09/2016 23:33	RLD	EPA 8260C
1,2-Dibromoethane	<0.070	ug/L	0.070	0.23	1	U		11/09/2016 23:33	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 23:33	RLD	EPA 8260C
1,2-Dichloroethane	<0.050	ug/L	0.050	0.18	1	U		11/09/2016 23:33	RLD	EPA 8260C
1,2-Dichloropropane	<0.070	ug/L	0.070	0.23	1	U		11/09/2016 23:33	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<0.050	ug/L	0.050	0.16	1	U		11/09/2016 23:33	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 23:33	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis



CT LAB#: 798999 Sample Description: MW-13S

DNR License/Well #: 4189/023

Sampled: 11/01/2016 1545

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,3-Dichloropropane	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 23:33	RLD	EPA 8260C
1,4-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 23:33	RLD	EPA 8260C
2,2-Dichloropropane	<0.050	ug/L	0.050	0.15	1	U		11/09/2016 23:33	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.5	1	U		11/09/2016 23:33	RLD	EPA 8260C
2-Chlorotoluene	<0.030	ug/L	0.030	0.11	1	U		11/09/2016 23:33	RLD	EPA 8260C
2-Hexanone	<0.24	ug/L	0.24	0.81	1	U		11/09/2016 23:33	RLD	EPA 8260C
4-Chlorotoluene	<0.040	ug/L	0.040	0.12	1	U		11/09/2016 23:33	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.24	ug/L	0.24	0.82	1	U		11/09/2016 23:33	RLD	EPA 8260C
Acetone	<0.30	ug/L	0.30	1.0	1	U		11/09/2016 23:33	RLD	EPA 8260C
Benzene	<0.018	ug/L	0.018	0.059	1	U		11/09/2016 23:33	RLD	EPA 8260C
Bromobenzene	<0.040	ug/L	0.040	0.15	1	U		11/09/2016 23:33	RLD	EPA 8260C
Bromochloromethane	<0.030	ug/L	0.030	0.099	1	U		11/09/2016 23:33	RLD	EPA 8260C
Bromodichloromethane	<0.016	ug/L	0.016	0.054	1	U		11/09/2016 23:33	RLD	EPA 8260C
Bromoform	<0.040	ug/L	0.040	0.12	1	U		11/09/2016 23:33	RLD	EPA 8260C
Bromomethane	<0.080	ug/L	0.080	0.28	1	U Z		11/09/2016 23:33	RLD	EPA 8260C
Carbon disulfide	<0.070	ug/L	0.070	0.25	1	U		11/09/2016 23:33	RLD	EPA 8260C
Carbon tetrachloride	<0.050	ug/L	0.050	0.18	1	U		11/09/2016 23:33	RLD	EPA 8260C
Chlorobenzene	<0.040	ug/L	0.040	0.15	1	U		11/09/2016 23:33	RLD	EPA 8260C
Chloroethane	<0.070	ug/L	0.070	0.23	1	U		11/09/2016 23:33	RLD	EPA 8260C
Chloroform	<0.030	ug/L	0.030	0.11	1	U		11/09/2016 23:33	RLD	EPA 8260C
Chloromethane	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 23:33	RLD	EPA 8260C
cis-1,2-Dichloroethene	0.25	ug/L	0.070	0.23	1			11/09/2016 23:33	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.011	ug/L	0.011	0.038	1	U		11/09/2016 23:33	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1	U		11/09/2016 23:33	RLD	EPA 8260C
Dibromomethane	<0.050	ug/L	0.050	0.17	1	U		11/09/2016 23:33	RLD	EPA 8260C
Dichlorodifluoromethane	<0.060	ug/L	0.060	0.19	1	U		11/09/2016 23:33	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 798999 Sample Description:MW-13S

DNR License/Well #: 4189/023

Sampled: 11/01/2016 1545

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Diisopropyl ether	<0.040	ug/L	0.040	0.14	1	U	11/09/2016 23:33	11/09/2016 23:33	RLD	EPA 8260C
Ethylbenzene	<0.040	ug/L	0.040	0.15	1	U	11/09/2016 23:33	11/09/2016 23:33	RLD	EPA 8260C
Hexachlorobutadiene	<0.050	ug/L	0.050	0.16	1	U	11/09/2016 23:33	11/09/2016 23:33	RLD	EPA 8260C
Isopropylbenzene	<0.040	ug/L	0.040	0.12	1	U	11/09/2016 23:33	11/09/2016 23:33	RLD	EPA 8260C
m & p-Xylene	<0.070	ug/L	0.070	0.23	1	U	11/09/2016 23:33	11/09/2016 23:33	RLD	EPA 8260C
Methyl tert-butyl ether	<0.040	ug/L	0.040	0.12	1	U	11/09/2016 23:33	11/09/2016 23:33	RLD	EPA 8260C
Methylene chloride	<0.050	ug/L	0.050	0.16	1	U	11/09/2016 23:33	11/09/2016 23:33	RLD	EPA 8260C
n-Butylbenzene	<0.030	ug/L	0.030	0.11	1	U	11/09/2016 23:33	11/09/2016 23:33	RLD	EPA 8260C
n-Propylbenzene	<0.040	ug/L	0.040	0.13	1	U	11/09/2016 23:33	11/09/2016 23:33	RLD	EPA 8260C
Naphthalene	<0.030	ug/L	0.030	0.10	1	U	11/09/2016 23:33	11/09/2016 23:33	RLD	EPA 8260C
o-Xylene	<0.040	ug/L	0.040	0.14	1	U	11/09/2016 23:33	11/09/2016 23:33	RLD	EPA 8260C
p-Isopropyltoluene	<0.040	ug/L	0.040	0.13	1	U	11/09/2016 23:33	11/09/2016 23:33	RLD	EPA 8260C
sec-Butylbenzene	<0.050	ug/L	0.050	0.16	1	U	11/09/2016 23:33	11/09/2016 23:33	RLD	EPA 8260C
Styrene	<0.030	ug/L	0.030	0.11	1	U	11/09/2016 23:33	11/09/2016 23:33	RLD	EPA 8260C
tert-Butylbenzene	<0.040	ug/L	0.040	0.14	1	U	11/09/2016 23:33	11/09/2016 23:33	RLD	EPA 8260C
Tetrachloroethene	0.097	ug/L	0.050	0.18	1	J	11/09/2016 23:33	11/09/2016 23:33	RLD	EPA 8260C
Tetrahydrofuran	<0.40	ug/L	0.40	1.5	1	U	11/09/2016 23:33	11/09/2016 23:33	RLD	EPA 8260C
Toluene	<0.040	ug/L	0.040	0.13	1	U	11/09/2016 23:33	11/09/2016 23:33	RLD	EPA 8260C
trans-1,2-Dichloroethene	<0.040	ug/L	0.040	0.14	1	U	11/09/2016 23:33	11/09/2016 23:33	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.019	ug/L	0.019	0.063	1	U	11/09/2016 23:33	11/09/2016 23:33	RLD	EPA 8260C
Trichloroethene	0.18	ug/L	0.050	0.17	1		11/09/2016 23:33	11/09/2016 23:33	RLD	EPA 8260C
Trichlorofluoromethane	<0.090	ug/L	0.090	0.14	1	U	11/09/2016 23:33	11/09/2016 23:33	RLD	EPA 8260C
Vinyl acetate	<0.22	ug/L	0.22	0.73	1	U	11/09/2016 23:33	11/09/2016 23:33	RLD	EPA 8260C
Vinyl chloride	<0.019	ug/L	0.019	0.064	1	U	11/09/2016 23:33	11/09/2016 23:33	RLD	EPA 8260C
1,4-Dioxane	<7.0	ug/L	7.0	23	1	U	11/09/2016 23:33	11/09/2016 23:33	RLD	EPA 8260C

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Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

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Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications
Kansas NELAP ID# E-10368
Kentucky ID# 0023
ISO/IEC 17025-2005 A2LA Cert # 3806.01
North Carolina ID# 674
Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID E871111, Expires Annually
Louisiana ID # 115843
Virginia ID# 7608
Illinois NELAP ID # 002413
Wisconsin (WOSB) ID# WI-5499-WBE
Maryland ID# 344

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase:
 Project #: 117-7413001.01
 Folder #: 123362
 Purchase Order #:
 Contract #: 2747

Page 1 of 2
 Arrival Temperature: 4.9
 Report Date: 11/30/2016
 Date Received: 11/02/2016
 Reprint Date: 11/30/2016

CT LAB#: 799000	Sample Description: MW-13S	DNR License/Well #: 4189/023	Sampled: 11/01/2016 1545
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Metals Results										
Dissolved Iron	0.118	mg/L	0.059	0.20	1	J	11/05/2016 16:45	11/05/2016 16:45	NAH	EPA 6010C
Dissolved Manganese	13.9	ug/L	2.2	7.3	1		11/05/2016 16:45	11/05/2016 16:45	NAH	EPA 6010C

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Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
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E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
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 Louisiana ID # 115843
 Virginia ID# 7608
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 Maryland ID# 344

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase:
 Project #: 117-7413001.01
 Folder #: 123362
 Purchase Order #:
 Contract #: 2747

Page 1 of 5
 Arrival Temperature: 4.9
 Report Date: 11/30/2016
 Date Received: 11/02/2016
 Reprint Date: 11/30/2016

CT LAB#: 799001 Sample Description: TW-2021

DNR License/Well #: 4189/048

Sampled: 11/01/2016 1625

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Field Results										
Dissolved Oxygen (Field)	0	mg/L	N/A	N/A	1			11/01/2016 00:00	BMS	
Depth to Groundwater (Field)	4.82	Feet	N/A	N/A	1			11/01/2016 00:00	BMS	
OX/REDOX (Field)	-29	MV	N/A	N/A	1			11/01/2016 00:00	BMS	
Color (Field)	CLEAR		N/A	N/A	1			11/01/2016 00:00	BMS	FIELD
Conductivity (Field)	1230	umhos/cm	N/A	N/A	1			11/01/2016 00:00	BMS	FIELD
Groundwater Elevation (Field)	846.31	Feet MSL	N/A	N/A	1			11/01/2016 00:00	BMS	FIELD
pH (Field)	6.93	S.U.	N/A	N/A	1			11/01/2016 00:00	BMS	FIELD
Temperature (Field)	8.14	Deg. C	N/A	N/A	1			11/01/2016 00:00	BMS	FIELD
Turbidity (Field)	CLEAR		N/A	N/A	1			11/01/2016 00:00	BMS	FIELD
Inorganic Results										
Alkalinity Total	380	mg/L	5.0	18	1			11/03/2016 16:07	LJS	EPA 310.2
Total Chloride	210	mg/L	2.1	7.2	3			11/03/2016 01:11	JJF	EPA 9056A
Total Sulfate	39	mg/L	3.0	9.6	3			11/03/2016 01:11	JJF	EPA 9056A
Total Organic Carbon	2.6	mg/L	0.50	1.7	1			11/07/2016 17:22	JJF	EPA 9060A
Metals Results										

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

The depth to groundwater and groundwater elevation results listed above are from a previous sampling round and therefore incorrect.

CT LAB#: 799001 Sample Description: TW-2021

DNR License/Well #: 4189/048

Sampled: 11/01/2016 1625

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Total Iron	0.191	mg/L	0.034	0.11	1		11/08/2016 15:00	11/09/2016 22:03	NAH	EPA 6010C
Total Manganese	441	ug/L	3.4	11	1		11/08/2016 15:00	11/09/2016 22:03	NAH	EPA 6010C
Organic Results										
Acetylene	<0.23	ug/L	0.23	0.77	1	U	11/10/2016 09:00	11/11/2016 10:23	agk	Mod RSK 175
Ethane	<0.40	ug/L	0.40	1.2	1	U	11/10/2016 09:00	11/11/2016 10:23	agk	Mod RSK 175
Ethene	<0.50	ug/L	0.50	1.8	1	U	11/10/2016 09:00	11/11/2016 10:23	agk	Mod RSK 175
Methane	2.7	ug/L	0.40	1.2	1		11/10/2016 09:00	11/11/2016 10:23	agk	Mod RSK 175
1,1,1,2-Tetrachloroethane	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 00:02	RLD	EPA 8260C
1,1,1-Trichloroethane	0.25	ug/L	0.050	0.17	1			11/10/2016 00:02	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.017	ug/L	0.017	0.057	1	U		11/10/2016 00:02	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.050	ug/L	0.050	0.16	1	U		11/10/2016 00:02	RLD	EPA 8260C
1,1-Dichloroethane	0.14	ug/L	0.060	0.19	1	J		11/10/2016 00:02	RLD	EPA 8260C
1,1-Dichloroethene	0.079	ug/L	0.060	0.20	1	J		11/10/2016 00:02	RLD	EPA 8260C
1,1-Dichloropropene	<0.060	ug/L	0.060	0.19	1	U		11/10/2016 00:02	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 00:02	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.040	ug/L	0.040	0.14	1	U		11/10/2016 00:02	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.040	ug/L	0.040	0.12	1	U		11/10/2016 00:02	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.040	ug/L	0.040	0.12	1	U		11/10/2016 00:02	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.090	ug/L	0.090	0.29	1	U		11/10/2016 00:02	RLD	EPA 8260C
1,2-Dibromoethane	<0.070	ug/L	0.070	0.23	1	U		11/10/2016 00:02	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 00:02	RLD	EPA 8260C
1,2-Dichloroethane	<0.050	ug/L	0.050	0.18	1	U		11/10/2016 00:02	RLD	EPA 8260C
1,2-Dichloropropane	<0.070	ug/L	0.070	0.23	1	U		11/10/2016 00:02	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<0.050	ug/L	0.050	0.16	1	U		11/10/2016 00:02	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 00:02	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 799001 Sample Description: TW-2021

DNR License/Well #: 4189/048

Sampled: 11/01/2016 1625

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,3-Dichloropropane	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 00:02	RLD	EPA 8260C
1,4-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 00:02	RLD	EPA 8260C
2,2-Dichloropropane	<0.050	ug/L	0.050	0.15	1	U		11/10/2016 00:02	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.5	1	U		11/10/2016 00:02	RLD	EPA 8260C
2-Chlorotoluene	<0.030	ug/L	0.030	0.11	1	U		11/10/2016 00:02	RLD	EPA 8260C
2-Hexanone	<0.24	ug/L	0.24	0.81	1	U		11/10/2016 00:02	RLD	EPA 8260C
4-Chlorotoluene	<0.040	ug/L	0.040	0.12	1	U		11/10/2016 00:02	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.24	ug/L	0.24	0.82	1	U		11/10/2016 00:02	RLD	EPA 8260C
Acetone	<0.30	ug/L	0.30	1.0	1	U		11/10/2016 00:02	RLD	EPA 8260C
Benzene	0.023	ug/L	0.018	0.059	1	J		11/10/2016 00:02	RLD	EPA 8260C
Bromobenzene	<0.040	ug/L	0.040	0.15	1	U		11/10/2016 00:02	RLD	EPA 8260C
Bromochloromethane	<0.030	ug/L	0.030	0.099	1	U		11/10/2016 00:02	RLD	EPA 8260C
Bromodichloromethane	<0.016	ug/L	0.016	0.054	1	U		11/10/2016 00:02	RLD	EPA 8260C
Bromoform	<0.040	ug/L	0.040	0.12	1	U		11/10/2016 00:02	RLD	EPA 8260C
Bromomethane	<0.080	ug/L	0.080	0.28	1	U Z		11/10/2016 00:02	RLD	EPA 8260C
Carbon disulfide	<0.070	ug/L	0.070	0.25	1	U		11/10/2016 00:02	RLD	EPA 8260C
Carbon tetrachloride	<0.050	ug/L	0.050	0.18	1	U		11/10/2016 00:02	RLD	EPA 8260C
Chlorobenzene	0.56	ug/L	0.040	0.15	1			11/10/2016 00:02	RLD	EPA 8260C
Chloroethane	<0.070	ug/L	0.070	0.23	1	U		11/10/2016 00:02	RLD	EPA 8260C
Chloroform	<0.030	ug/L	0.030	0.11	1	U		11/10/2016 00:02	RLD	EPA 8260C
Chloromethane	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 00:02	RLD	EPA 8260C
cis-1,2-Dichloroethene	17	ug/L	0.070	0.23	1			11/10/2016 00:02	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.011	ug/L	0.011	0.038	1	U		11/10/2016 00:02	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1	U		11/10/2016 00:02	RLD	EPA 8260C
Dibromomethane	<0.050	ug/L	0.050	0.17	1	U		11/10/2016 00:02	RLD	EPA 8260C
Dichlorodifluoromethane	<0.060	ug/L	0.060	0.19	1	U		11/10/2016 00:02	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 799001 Sample Description: TW-2021

DNR License/Well #: 4189/048

Sampled: 11/01/2016 1625

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Diisopropyl ether	<0.040	ug/L	0.040	0.14	1	U	11/10/2016 00:02	11/10/2016 00:02	RLD	EPA 8260C
Ethylbenzene	<0.040	ug/L	0.040	0.15	1	U	11/10/2016 00:02	11/10/2016 00:02	RLD	EPA 8260C
Hexachlorobutadiene	<0.050	ug/L	0.050	0.16	1	U	11/10/2016 00:02	11/10/2016 00:02	RLD	EPA 8260C
Isopropylbenzene	<0.040	ug/L	0.040	0.12	1	U	11/10/2016 00:02	11/10/2016 00:02	RLD	EPA 8260C
m & p-Xylene	<0.070	ug/L	0.070	0.23	1	U	11/10/2016 00:02	11/10/2016 00:02	RLD	EPA 8260C
Methyl tert-butyl ether	<0.040	ug/L	0.040	0.12	1	U	11/10/2016 00:02	11/10/2016 00:02	RLD	EPA 8260C
Methylene chloride	<0.050	ug/L	0.050	0.16	1	U	11/10/2016 00:02	11/10/2016 00:02	RLD	EPA 8260C
n-Butylbenzene	<0.030	ug/L	0.030	0.11	1	U	11/10/2016 00:02	11/10/2016 00:02	RLD	EPA 8260C
n-Propylbenzene	<0.040	ug/L	0.040	0.13	1	U	11/10/2016 00:02	11/10/2016 00:02	RLD	EPA 8260C
Naphthalene	<0.030	ug/L	0.030	0.10	1	U	11/10/2016 00:02	11/10/2016 00:02	RLD	EPA 8260C
o-Xylene	<0.040	ug/L	0.040	0.14	1	U	11/10/2016 00:02	11/10/2016 00:02	RLD	EPA 8260C
p-Isopropyltoluene	<0.040	ug/L	0.040	0.13	1	U	11/10/2016 00:02	11/10/2016 00:02	RLD	EPA 8260C
sec-Butylbenzene	<0.050	ug/L	0.050	0.16	1	U	11/10/2016 00:02	11/10/2016 00:02	RLD	EPA 8260C
Styrene	<0.030	ug/L	0.030	0.11	1	U	11/10/2016 00:02	11/10/2016 00:02	RLD	EPA 8260C
tert-Butylbenzene	<0.040	ug/L	0.040	0.14	1	U	11/10/2016 00:02	11/10/2016 00:02	RLD	EPA 8260C
Tetrachloroethene	<0.050	ug/L	0.050	0.18	1	U	11/10/2016 00:02	11/10/2016 00:02	RLD	EPA 8260C
Tetrahydrofuran	<0.40	ug/L	0.40	1.5	1	U	11/10/2016 00:02	11/10/2016 00:02	RLD	EPA 8260C
Toluene	<0.040	ug/L	0.040	0.13	1	U	11/10/2016 00:02	11/10/2016 00:02	RLD	EPA 8260C
trans-1,2-Dichloroethene	1.2	ug/L	0.040	0.14	1		11/10/2016 00:02	11/10/2016 00:02	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.019	ug/L	0.019	0.063	1	U	11/10/2016 00:02	11/10/2016 00:02	RLD	EPA 8260C
Trichloroethene	11	ug/L	0.050	0.17	1		11/10/2016 00:02	11/10/2016 00:02	RLD	EPA 8260C
Trichlorofluoromethane	<0.090	ug/L	0.090	0.14	1	U	11/10/2016 00:02	11/10/2016 00:02	RLD	EPA 8260C
Vinyl acetate	<0.22	ug/L	0.22	0.73	1	U	11/10/2016 00:02	11/10/2016 00:02	RLD	EPA 8260C
Vinyl chloride	<0.019	ug/L	0.019	0.064	1	U	11/10/2016 00:02	11/10/2016 00:02	RLD	EPA 8260C
1,4-Dioxane	<7.0	ug/L	7.0	23	1	U	11/10/2016 00:02	11/10/2016 00:02	RLD	EPA 8260C

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Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

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D	Diluted Out.	
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H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
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L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
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Maryland ID# 344

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase:
 Project #: 117-7413001.01
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Page 1 of 2
 Arrival Temperature: 4.9
 Report Date: 11/30/2016
 Date Received: 11/02/2016
 Reprint Date: 11/30/2016

CT LAB#: 799002	Sample Description: TW-2021	DNR License/Well #: 4189/048	Sampled: 11/01/2016 1625
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Metals Results										
Dissolved Iron	0.122	mg/L	0.059	0.20	1	J	11/05/2016 16:53	11/05/2016 16:53	NAH	EPA 6010C
Dissolved Manganese	431	ug/L	2.2	7.3	1		11/05/2016 16:53	11/05/2016 16:53	NAH	EPA 6010C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications
Kansas NELAP ID# E-10368
Kentucky ID# 0023
ISO/IEC 17025-2005 A2LA Cert # 3806.01
North Carolina ID# 674
Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID E8711111, Expires Annually
Louisiana ID # 115843
Virginia ID# 7608
Illinois NELAP ID # 002413
Wisconsin (WOSB) ID# WI-5499-WBE
Maryland ID# 344

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase:
 Project #: 117-7413001.01
 Folder #: 123362
 Purchase Order #:
 Contract #: 2747

Page 1 of 5
 Arrival Temperature: 4.9
 Report Date: 11/30/2016
 Date Received: 11/02/2016
 Reprint Date: 11/30/2016

CT LAB#: 799003	Sample Description: PW-04	DNR License/Well #: 4189/052	Sampled: 11/01/2016 1650
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Organic Results										
1,1,1,2-Tetrachloroethane	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 00:31	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.050	ug/L	0.050	0.17	1	U		11/10/2016 00:31	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.017	ug/L	0.017	0.057	1	U		11/10/2016 00:31	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.050	ug/L	0.050	0.16	1	U		11/10/2016 00:31	RLD	EPA 8260C
1,1-Dichloroethane	<0.060	ug/L	0.060	0.19	1	U		11/10/2016 00:31	RLD	EPA 8260C
1,1-Dichloroethene	<0.060	ug/L	0.060	0.20	1	U		11/10/2016 00:31	RLD	EPA 8260C
1,1-Dichloropropene	<0.060	ug/L	0.060	0.19	1	U		11/10/2016 00:31	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 00:31	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.040	ug/L	0.040	0.14	1	U		11/10/2016 00:31	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.040	ug/L	0.040	0.12	1	U		11/10/2016 00:31	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.040	ug/L	0.040	0.12	1	U		11/10/2016 00:31	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.090	ug/L	0.090	0.29	1	U		11/10/2016 00:31	RLD	EPA 8260C
1,2-Dibromoethane	<0.070	ug/L	0.070	0.23	1	U		11/10/2016 00:31	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 00:31	RLD	EPA 8260C
1,2-Dichloroethane	<0.050	ug/L	0.050	0.18	1	U		11/10/2016 00:31	RLD	EPA 8260C
1,2-Dichloropropane	<0.070	ug/L	0.070	0.23	1	U		11/10/2016 00:31	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 799003 Sample Description:PW-04

DNR License/Well #: 4189/052

Sampled: 11/01/2016 1650

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,3,5-Trimethylbenzene	<0.050	ug/L	0.050	0.16	1	U		11/10/2016 00:31	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 00:31	RLD	EPA 8260C
1,3-Dichloropropane	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 00:31	RLD	EPA 8260C
1,4-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 00:31	RLD	EPA 8260C
2,2-Dichloropropane	<0.050	ug/L	0.050	0.15	1	U		11/10/2016 00:31	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.5	1	U		11/10/2016 00:31	RLD	EPA 8260C
2-Chlorotoluene	<0.030	ug/L	0.030	0.11	1	U		11/10/2016 00:31	RLD	EPA 8260C
2-Hexanone	<0.24	ug/L	0.24	0.81	1	U		11/10/2016 00:31	RLD	EPA 8260C
4-Chlorotoluene	<0.040	ug/L	0.040	0.12	1	U		11/10/2016 00:31	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.24	ug/L	0.24	0.82	1	U		11/10/2016 00:31	RLD	EPA 8260C
Acetone	<0.30	ug/L	0.30	1.0	1	U		11/10/2016 00:31	RLD	EPA 8260C
Benzene	<0.018	ug/L	0.018	0.059	1	U		11/10/2016 00:31	RLD	EPA 8260C
Bromobenzene	<0.040	ug/L	0.040	0.15	1	U		11/10/2016 00:31	RLD	EPA 8260C
Bromochloromethane	<0.030	ug/L	0.030	0.099	1	U		11/10/2016 00:31	RLD	EPA 8260C
Bromodichloromethane	<0.016	ug/L	0.016	0.054	1	U		11/10/2016 00:31	RLD	EPA 8260C
Bromoform	<0.040	ug/L	0.040	0.12	1	U		11/10/2016 00:31	RLD	EPA 8260C
Bromomethane	<0.080	ug/L	0.080	0.28	1	U Z		11/10/2016 00:31	RLD	EPA 8260C
Carbon disulfide	<0.070	ug/L	0.070	0.25	1	U		11/10/2016 00:31	RLD	EPA 8260C
Carbon tetrachloride	<0.050	ug/L	0.050	0.18	1	U		11/10/2016 00:31	RLD	EPA 8260C
Chlorobenzene	<0.040	ug/L	0.040	0.15	1	U		11/10/2016 00:31	RLD	EPA 8260C
Chloroethane	<0.070	ug/L	0.070	0.23	1	U		11/10/2016 00:31	RLD	EPA 8260C
Chloroform	<0.030	ug/L	0.030	0.11	1	U		11/10/2016 00:31	RLD	EPA 8260C
Chloromethane	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 00:31	RLD	EPA 8260C
cis-1,2-Dichloroethene	1.4	ug/L	0.070	0.23	1			11/10/2016 00:31	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.011	ug/L	0.011	0.038	1	U		11/10/2016 00:31	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1	U		11/10/2016 00:31	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 799003 Sample Description:PW-04

DNR License/Well #: 4189/052

Sampled: 11/01/2016 1650

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Dibromomethane	<0.050	ug/L	0.050	0.17	1	U		11/10/2016 00:31	RLD	EPA 8260C
Dichlorodifluoromethane	<0.060	ug/L	0.060	0.19	1	U		11/10/2016 00:31	RLD	EPA 8260C
Diisopropyl ether	0.044	ug/L	0.040	0.14	1	J		11/10/2016 00:31	RLD	EPA 8260C
Ethylbenzene	<0.040	ug/L	0.040	0.15	1	U		11/10/2016 00:31	RLD	EPA 8260C
Hexachlorobutadiene	<0.050	ug/L	0.050	0.16	1	U		11/10/2016 00:31	RLD	EPA 8260C
Isopropylbenzene	<0.040	ug/L	0.040	0.12	1	U		11/10/2016 00:31	RLD	EPA 8260C
m & p-Xylene	<0.070	ug/L	0.070	0.23	1	U		11/10/2016 00:31	RLD	EPA 8260C
Methyl tert-butyl ether	0.55	ug/L	0.040	0.12	1			11/10/2016 00:31	RLD	EPA 8260C
Methylene chloride	<0.050	ug/L	0.050	0.16	1	U		11/10/2016 00:31	RLD	EPA 8260C
n-Butylbenzene	<0.030	ug/L	0.030	0.11	1	U		11/10/2016 00:31	RLD	EPA 8260C
n-Propylbenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 00:31	RLD	EPA 8260C
Naphthalene	<0.030	ug/L	0.030	0.10	1	U		11/10/2016 00:31	RLD	EPA 8260C
o-Xylene	<0.040	ug/L	0.040	0.14	1	U		11/10/2016 00:31	RLD	EPA 8260C
p-Isopropyltoluene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 00:31	RLD	EPA 8260C
sec-Butylbenzene	<0.050	ug/L	0.050	0.16	1	U		11/10/2016 00:31	RLD	EPA 8260C
Styrene	<0.030	ug/L	0.030	0.11	1	U		11/10/2016 00:31	RLD	EPA 8260C
tert-Butylbenzene	<0.040	ug/L	0.040	0.14	1	U		11/10/2016 00:31	RLD	EPA 8260C
Tetrachloroethene	<0.050	ug/L	0.050	0.18	1	U		11/10/2016 00:31	RLD	EPA 8260C
Tetrahydrofuran	<0.40	ug/L	0.40	1.5	1	U		11/10/2016 00:31	RLD	EPA 8260C
Toluene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 00:31	RLD	EPA 8260C
trans-1,2-Dichloroethene	0.077	ug/L	0.040	0.14	1	J		11/10/2016 00:31	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.019	ug/L	0.019	0.063	1	U		11/10/2016 00:31	RLD	EPA 8260C
Trichloroethene	0.089	ug/L	0.050	0.17	1	J		11/10/2016 00:31	RLD	EPA 8260C
Trichlorofluoromethane	<0.090	ug/L	0.090	0.14	1	U		11/10/2016 00:31	RLD	EPA 8260C
Vinyl acetate	<0.22	ug/L	0.22	0.73	1	U		11/10/2016 00:31	RLD	EPA 8260C
Vinyl chloride	<0.019	ug/L	0.019	0.064	1	U		11/10/2016 00:31	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 799003 Sample Description:PW-04 DNR License/Well #: 4189/052 Sampled: 11/01/2016 1650

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,4-Dioxane	<7.0	ug/L	7.0	23	1	U		11/10/2016 00:31	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications

Kansas NELAP ID# E-10368
Kentucky ID# 0023
ISO/IEC 17025-2005 A2LA Cert # 3806.01
North Carolina ID# 674
Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID E871111, Expires Annually
Louisiana ID # 115843
Virginia ID# 7608
Illinois NELAP ID # 002413
Wisconsin (WOSB) ID# WI-5499-WBE
Maryland ID# 344

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase:
 Project #: 117-7413001.01
 Folder #: 123362
 Purchase Order #:
 Contract #: 2747

Page 1 of 5
 Arrival Temperature: 4.9
 Report Date: 11/30/2016
 Date Received: 11/02/2016
 Reprint Date: 11/30/2016

CT LAB#: 799004 Sample Description: TB-1

DNR License/Well #: 4189/999 Sampled: 10/31/2016

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Organic Results										
1,1,1,2-Tetrachloroethane	<0.040	ug/L	0.040	0.13	1	U	11/09/2016 18:42	11/09/2016 18:42	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.050	ug/L	0.050	0.17	1	U	11/09/2016 18:42	11/09/2016 18:42	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.017	ug/L	0.017	0.057	1	U	11/09/2016 18:42	11/09/2016 18:42	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.050	ug/L	0.050	0.16	1	U	11/09/2016 18:42	11/09/2016 18:42	RLD	EPA 8260C
1,1-Dichloroethane	<0.060	ug/L	0.060	0.19	1	U	11/09/2016 18:42	11/09/2016 18:42	RLD	EPA 8260C
1,1-Dichloroethene	<0.060	ug/L	0.060	0.20	1	U	11/09/2016 18:42	11/09/2016 18:42	RLD	EPA 8260C
1,1-Dichloropropene	<0.060	ug/L	0.060	0.19	1	U	11/09/2016 18:42	11/09/2016 18:42	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.040	ug/L	0.040	0.13	1	U	11/09/2016 18:42	11/09/2016 18:42	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.040	ug/L	0.040	0.14	1	U	11/09/2016 18:42	11/09/2016 18:42	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.040	ug/L	0.040	0.12	1	U	11/09/2016 18:42	11/09/2016 18:42	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.040	ug/L	0.040	0.12	1	U	11/09/2016 18:42	11/09/2016 18:42	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.090	ug/L	0.090	0.29	1	U	11/09/2016 18:42	11/09/2016 18:42	RLD	EPA 8260C
1,2-Dibromoethane	<0.070	ug/L	0.070	0.23	1	U	11/09/2016 18:42	11/09/2016 18:42	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U	11/09/2016 18:42	11/09/2016 18:42	RLD	EPA 8260C
1,2-Dichloroethane	<0.050	ug/L	0.050	0.18	1	U	11/09/2016 18:42	11/09/2016 18:42	RLD	EPA 8260C
1,2-Dichloropropane	<0.070	ug/L	0.070	0.23	1	U	11/09/2016 18:42	11/09/2016 18:42	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 799004 Sample Description:TB-1

DNR License/Well #: 4189/999

Sampled: 10/31/2016

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,3,5-Trimethylbenzene	<0.050	ug/L	0.050	0.16	1	U		11/09/2016 18:42	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 18:42	RLD	EPA 8260C
1,3-Dichloropropane	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 18:42	RLD	EPA 8260C
1,4-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 18:42	RLD	EPA 8260C
2,2-Dichloropropane	<0.050	ug/L	0.050	0.15	1	U		11/09/2016 18:42	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.5	1	U		11/09/2016 18:42	RLD	EPA 8260C
2-Chlorotoluene	<0.030	ug/L	0.030	0.11	1	U		11/09/2016 18:42	RLD	EPA 8260C
2-Hexanone	<0.24	ug/L	0.24	0.81	1	U		11/09/2016 18:42	RLD	EPA 8260C
4-Chlorotoluene	<0.040	ug/L	0.040	0.12	1	U		11/09/2016 18:42	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.24	ug/L	0.24	0.82	1	U		11/09/2016 18:42	RLD	EPA 8260C
Acetone	0.93	ug/L	0.30	1.0	1	J B		11/09/2016 18:42	RLD	EPA 8260C
Benzene	<0.018	ug/L	0.018	0.059	1	U		11/09/2016 18:42	RLD	EPA 8260C
Bromobenzene	<0.040	ug/L	0.040	0.15	1	U		11/09/2016 18:42	RLD	EPA 8260C
Bromochloromethane	<0.030	ug/L	0.030	0.099	1	U		11/09/2016 18:42	RLD	EPA 8260C
Bromodichloromethane	<0.016	ug/L	0.016	0.054	1	U		11/09/2016 18:42	RLD	EPA 8260C
Bromoform	<0.040	ug/L	0.040	0.12	1	U		11/09/2016 18:42	RLD	EPA 8260C
Bromomethane	<0.080	ug/L	0.080	0.28	1	U Z		11/09/2016 18:42	RLD	EPA 8260C
Carbon disulfide	<0.070	ug/L	0.070	0.25	1	U		11/09/2016 18:42	RLD	EPA 8260C
Carbon tetrachloride	<0.050	ug/L	0.050	0.18	1	U		11/09/2016 18:42	RLD	EPA 8260C
Chlorobenzene	<0.040	ug/L	0.040	0.15	1	U		11/09/2016 18:42	RLD	EPA 8260C
Chloroethane	<0.070	ug/L	0.070	0.23	1	U		11/09/2016 18:42	RLD	EPA 8260C
Chloroform	<0.030	ug/L	0.030	0.11	1	U		11/09/2016 18:42	RLD	EPA 8260C
Chloromethane	0.042	ug/L	0.040	0.13	1	J		11/09/2016 18:42	RLD	EPA 8260C
cis-1,2-Dichloroethene	<0.070	ug/L	0.070	0.23	1	U		11/09/2016 18:42	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.011	ug/L	0.011	0.038	1	U		11/09/2016 18:42	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1	U		11/09/2016 18:42	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 799004 Sample Description:TB-1

DNR License/Well #: 4189/999

Sampled: 10/31/2016

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Dibromomethane	<0.050	ug/L	0.050	0.17	1	U		11/09/2016 18:42	RLD	EPA 8260C
Dichlorodifluoromethane	<0.060	ug/L	0.060	0.19	1	U		11/09/2016 18:42	RLD	EPA 8260C
Diisopropyl ether	<0.040	ug/L	0.040	0.14	1	U		11/09/2016 18:42	RLD	EPA 8260C
Ethylbenzene	<0.040	ug/L	0.040	0.15	1	U		11/09/2016 18:42	RLD	EPA 8260C
Hexachlorobutadiene	<0.050	ug/L	0.050	0.16	1	U		11/09/2016 18:42	RLD	EPA 8260C
Isopropylbenzene	<0.040	ug/L	0.040	0.12	1	U		11/09/2016 18:42	RLD	EPA 8260C
m & p-Xylene	<0.070	ug/L	0.070	0.23	1	U		11/09/2016 18:42	RLD	EPA 8260C
Methyl tert-butyl ether	<0.040	ug/L	0.040	0.12	1	U		11/09/2016 18:42	RLD	EPA 8260C
Methylene chloride	<0.050	ug/L	0.050	0.16	1	U		11/09/2016 18:42	RLD	EPA 8260C
n-Butylbenzene	<0.030	ug/L	0.030	0.11	1	U		11/09/2016 18:42	RLD	EPA 8260C
n-Propylbenzene	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 18:42	RLD	EPA 8260C
Naphthalene	<0.030	ug/L	0.030	0.10	1	U		11/09/2016 18:42	RLD	EPA 8260C
o-Xylene	<0.040	ug/L	0.040	0.14	1	U		11/09/2016 18:42	RLD	EPA 8260C
p-Isopropyltoluene	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 18:42	RLD	EPA 8260C
sec-Butylbenzene	<0.050	ug/L	0.050	0.16	1	U		11/09/2016 18:42	RLD	EPA 8260C
Styrene	<0.030	ug/L	0.030	0.11	1	U		11/09/2016 18:42	RLD	EPA 8260C
tert-Butylbenzene	<0.040	ug/L	0.040	0.14	1	U		11/09/2016 18:42	RLD	EPA 8260C
Tetrachloroethene	<0.050	ug/L	0.050	0.18	1	U		11/09/2016 18:42	RLD	EPA 8260C
Tetrahydrofuran	0.49	ug/L	0.40	1.5	1	J		11/09/2016 18:42	RLD	EPA 8260C
Toluene	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 18:42	RLD	EPA 8260C
trans-1,2-Dichloroethene	<0.040	ug/L	0.040	0.14	1	U		11/09/2016 18:42	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.019	ug/L	0.019	0.063	1	U		11/09/2016 18:42	RLD	EPA 8260C
Trichloroethene	<0.050	ug/L	0.050	0.17	1	U		11/09/2016 18:42	RLD	EPA 8260C
Trichlorofluoromethane	<0.090	ug/L	0.090	0.14	1	U		11/09/2016 18:42	RLD	EPA 8260C
Vinyl acetate	<0.22	ug/L	0.22	0.73	1	U		11/09/2016 18:42	RLD	EPA 8260C
Vinyl chloride	<0.019	ug/L	0.019	0.064	1	U		11/09/2016 18:42	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 799004 Sample Description:TB-1 DNR License/Well #: 4189/999 Sampled: 10/31/2016

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,4-Dioxane	<7.0	ug/L	7.0	23	1	U		11/09/2016 18:42	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications
Kansas NELAP ID# E-10368
Kentucky ID# 0023
ISO/IEC 17025-2005 A2LA Cert # 3806.01
North Carolina ID# 674
Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID E8711111, Expires Annually
Louisiana ID # 115843
Virginia ID# 7608
Illinois NELAP ID # 002413
Wisconsin (WOSB) ID# WI-5499-WBE
Maryland ID# 344

QC SUMMARY REPORT

TETRA TECH

SDG #: 0

Folder #: 123362

**Project Name: OCONOMOWOC
 ELECTROPLATING
 Project Number: 117-7413001.01**

Lab Control Spike Water

Analytical Run #:	132204	Analysis Date:	11/02/2016	Prep Batch #:	Matrix:	LIQUID
CTLab #:	799408	Analysis Time:	16:08	Prep Date/Time:	Method:	SW9056A
Parent Sample #:		Analyst:	JJF	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Chloride	16.36	mg/L			15.00	109	80 --- 120		
Sulfate	26.36	mg/L			25.00	105	80 --- 120		

TETRA TECH

SDG #: 0

Folder #: 123362

Project Name: OCONOMOWOC
ELECTROPLATING
Project Number: 117-7413001.01

Method Blank Water

Analytical Run #:	132204	Analysis Date:	11/02/2016	Prep Batch #:	Matrix:	LIQUID
CTLab #:	799404	Analysis Time:	16:30	Prep Date/Time:	Method:	SW9056A
Parent Sample #:		Analyst:	JJF	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Chloride	0.7	mg/L		U	0		0.7		
Sulfate	1.0	mg/L		U	0		1.0		

TETRA TECH

SDG #: 0

Folder #: 123362

Project Name: OCONOMOWOC
ELECTROPLATING
Project Number: 117-7413001.01

Lab Control Spike Water

Analytical Run #:	132264	Analysis Date:	11/03/2016	Prep Batch #:	Matrix:	LIQUID
CTLab #:	799654	Analysis Time:	15:38	Prep Date/Time:	Method:	E310.2
Parent Sample #:		Analyst:	LJS	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Alkalinity	374.0	mg/L			375.0	100	90 --- 110		

TETRA TECH

SDG #: 0

Folder #: 123362

Project Name: OCONOMOWOC
ELECTROPLATING
Project Number: 117-7413001.01

Method Blank Water

Analytical Run #:	132264	Analysis Date:	11/03/2016	Prep Batch #:	Matrix:	LIQUID
CTLab #:	799655	Analysis Time:	15:39	Prep Date/Time:	Method:	E310.2
Parent Sample #:		Analyst:	LJS	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Alkalinity	5	mg/L		U	0			5	

TETRA TECH

SDG #: 0

Folder #: 123362

Project Name: OCONOMOWOC

ELECTROPLATING

Project Number: 117-7413001.01

Lab Control Spike Water

Analytical Run #:	132380	Analysis Date:	11/07/2016	Prep Batch #:		Matrix:	LIQUID
CTLab #:	802096	Analysis Time:	12:19	Prep Date/Time:		Method:	SW9060
Parent Sample #:		Analyst:	JJF	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Organic Carbon	49.20	mg/L			50.00	98	85 --- 111		

TETRA TECH

SDG #: 0

Folder #: 123362

Project Name: OCONOMOWOC
ELECTROPLATING
Project Number: 117-7413001.01

Method Blank Water

Analytical Run #:	132380	Analysis Date:	11/07/2016	Prep Batch #:	Matrix:	LIQUID
CTLab #:	802097	Analysis Time:	12:33	Prep Date/Time:	Method:	SW9060
Parent Sample #:		Analyst:	JJF	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Organic Carbon	0.5	mg/L		U	0		0.5		

TETRA TECH

SDG #: 0

Folder #: 123362

Project Name: OCONOMOWOC
ELECTROPLATING
Project Number: 117-7413001.01

Method Blank Water

Analytical Run #:	132380	Analysis Date:	11/07/2016	Prep Batch #:		Matrix:	LIQUID
CTLab #:	802108	Analysis Time:	18:04	Prep Date/Time:		Method:	SW9060
Parent Sample #:		Analyst:	JJF	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Dissolved Organic Carbon	0.5	mg/L		U	0		0.5		
Total Organic Carbon	0.5	mg/L		U	0		0.5		

TETRA TECH

SDG #: 0

Folder #: 123362

Project Name: OCONOMOWOC

ELECTROPLATING

Project Number: 117-7413001.01

Matrix Spike Duplicate Water

Analytical Run #:	132233	Analysis Date:	11/05/2016	Prep Batch #:	Matrix:	GROUND WATER
CTLab #:	805161	Analysis Time:	15:27	Prep Date/Time:	Method:	SW6010
Parent Sample #:	805160	Analyst:	DC	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Iron	5.27	mg/L	3.23		2.00	102	72 --- 113	2	18
Manganese	1450	ug/L	415		1000	104	67 --- 121	4	13

Matrix Spike Water

Analytical Run #:	132233	Analysis Date:	11/05/2016	Prep Batch #:	Matrix:	GROUND WATER
CTLab #:	805160	Analysis Time:	15:20	Prep Date/Time:	Method:	SW6010
Parent Sample #:	798960	Analyst:	DC	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Iron	5.19	mg/L	3.23		2.00	98	72 --- 113		18
Manganese	1390	ug/L	415		1000	98	67 --- 121		13

TETRA TECH

SDG #: 0

Folder #: 123362

Project Name: OCONOMOWOC
ELECTROPLATING
Project Number: 117-7413001.01

Lab Control Spike Water

Analytical Run #:	132487	Analysis Date:	11/09/2016	Prep Batch #:	60016	Matrix:	LIQUID
CTLab #:	801337	Analysis Time:	20:01	Prep Date/Time:	11/08/2016 15:00	Method:	SW6010
Parent Sample #:		Analyst:	NAH	Prep Analyst:	NAH		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Iron	0.3830	mg/L			0.4000	96	80 --- 115		
Manganese	214.0	ug/L			200.0	107	86 --- 112		

TETRA TECH

SDG #: 0

Folder #: 123362

Project Name: OCONOMOWOC
ELECTROPLATING
Project Number: 117-7413001.01

Method Blank Water

Analytical Run #:	132487	Analysis Date:	11/09/2016	Prep Batch #:	60016	Matrix:	LIQUID
CTLab #:	801336	Analysis Time:	20:08	Prep Date/Time:	11/08/2016 15:00	Method:	SW6010
Parent Sample #:		Analyst:	NAH	Prep Analyst:	NAH		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Iron	0.034	mg/L		U	0		0.034		
Manganese	3.4	ug/L		U	0		3.4		

TETRA TECH

SDG #: 0

Folder #: 123362

Project Name: OCONOMOWOC

ELECTROPLATING

Project Number: 117-7413001.01

Matrix Spike Duplicate Water

Analytical Run #:	132487	Analysis Date:	11/09/2016	Prep Batch #:	60016	Matrix:	GROUND WATER
CTLab #:	801340	Analysis Time:	20:30	Prep Date/Time:	11/08/2016 15:00	Method:	SW6010
Parent Sample #:	801339	Analyst:	NAH	Prep Analyst:	NAH		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Iron	4.05	mg/L	3.70		0.400	88	72 --- 118	1	11
Manganese	606	ug/L	404		200	101	84 --- 111	1	7

TETRA TECH

SDG #: 0

Folder #: 123362

Project Name: OCONOMOWOC

ELECTROPLATING

Project Number: 117-7413001.01

Matrix Spike Water

Analytical Run #:	132487	Analysis Date:	11/09/2016	Prep Batch #:	60016	Matrix:	GROUND WATER
CTLab #:	801339	Analysis Time:	20:23	Prep Date/Time:	11/08/2016 15:00	Method:	SW6010
Parent Sample #:	798943	Analyst:	NAH	Prep Analyst:	NAH		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Iron	4.00	mg/L	3.70		0.400	75	72 --- 118		
Manganese	602	ug/L	404		200	99	84 --- 111		

Lab Control Spike Water

Analytical Run #:	132322	Analysis Date:	11/09/2016	Prep Batch #:	Matrix:	LIQUID
CTLab #:	803728	Analysis Time:	16:46	Prep Date/Time:	Method:	SW8260C
Parent Sample #:		Analyst:	RLD	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	3.73	ug/L			4.00	93	74 --- 127		
1,1,1-Trichloroethane	3.70	ug/L			4.00	92	73 --- 132		
1,1,2,2-Tetrachloroethane	3.70	ug/L			4.00	92	67 --- 129		
1,1,2-Trichloroethane	3.72	ug/L			4.00	93	73 --- 129		
1,1-Dichloroethane	3.63	ug/L			4.00	91	73 --- 129		
1,1-Dichloroethene	3.55	ug/L			4.00	89	73 --- 132		
1,1-Dichloropropene	3.66	ug/L			4.00	92	75 --- 125		
1,2-Dichloroethane-d4	97.0	% Recovery			100	97.0	68 --- 120		
1,2,3-Trichlorobenzene	3.97	ug/L			4.00	99	72 --- 125		
1,2,3-Trichloropropane	3.22	ug/L			4.00	80	68 --- 136		
1,2,4-Trichlorobenzene	4.05	ug/L			4.00	101	67 --- 124		
1,2,4-Trimethylbenzene	3.86	ug/L			4.00	96	77 --- 123		
1,2-Dibromo-3-chloropropane	3.52	ug/L			4.00	88	56 --- 138		
1,2-Dibromoethane	3.68	ug/L			4.00	92	76 --- 127		
1,2-Dichlorobenzene	3.98	ug/L			4.00	100	82 --- 120		
1,2-Dichloroethane	3.68	ug/L			4.00	92	72 --- 134		
1,2-Dichloropropane	3.70	ug/L			4.00	92	76 --- 124		
1,3,5-Trimethylbenzene	3.98	ug/L			4.00	100	77 --- 124		
1,3-Dichlorobenzene	4.01	ug/L			4.00	100	81 --- 120		
1,3-Dichloropropane	3.57	ug/L			4.00	89	76 --- 125		
1,4-Dichlorobenzene	4.06	ug/L			4.00	102	80 --- 120		
2,2-Dichloropropane	4.03	ug/L			4.00	101	54 --- 144		
2-Butanone	34.1	ug/L			40.0	85	57 --- 144		
2-Chlorotoluene	3.94	ug/L			4.00	98	77 --- 123		
2-Hexanone	35.3	ug/L			40.0	88	61 --- 132		
4-Chlorotoluene	3.99	ug/L			4.00	100	76 --- 124		
4-Methyl-2-pentanone	34.1	ug/L			40.0	85	64 --- 135		
Acetone	33.3	ug/L			40.0	83	51 --- 152		
Benzene	3.70	ug/L			4.00	92	80 --- 122		
Bromobenzene	3.99	ug/L			4.00	100	81 --- 120		
Bromochloromethane	3.42	ug/L			4.00	86	78 --- 126		
Bromodichloromethane	3.59	ug/L			4.00	90	67 --- 132		
Bromofluorobenzene	100	% Recovery			100	100	68 --- 120		
Bromoform	3.26	ug/L			4.00	82	55 --- 132		
Bromomethane	3.07	ug/L			4.00	77	65 --- 141		
Carbon disulfide	7.24	ug/L			8.00	90	61 --- 140		
Carbon tetrachloride	3.89	ug/L			4.00	97	72 --- 133		
Chlorobenzene	3.83	ug/L			4.00	96	80 --- 122		
Chloroethane	4.10	ug/L			4.00	102	71 --- 134		
Chloroform	3.61	ug/L			4.00	90	73 --- 127		
Chloromethane	3.64	ug/L			4.00	91	72 --- 128		
cis-1,2-Dichloroethene	3.80	ug/L			4.00	95	76 --- 127		

Lab Control Spike Water

Analytical Run #:	132322	Analysis Date:	11/09/2016	Prep Batch #:	Matrix:	LIQUID
CTLab #:	803728	Analysis Time:	16:46	Prep Date/Time:	Method:	SW8260C
Parent Sample #:		Analyst:	RLD	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
cis-1,3-Dichloropropene	3.67	ug/L			4.00	92	72 --- 125		
d8-Toluene	99.0	% Recovery			100	99.0	71 --- 117		
Dibromochloromethane	3.54	ug/L			4.00	88	60 --- 131		
Dibromofluoromethane	100	% Recovery			100	100	67 --- 121		
Dibromomethane	3.56	ug/L			4.00	89	76 --- 129		
Dichlorodifluoromethane	3.90	ug/L			4.00	98	64 --- 149		
Diisopropyl ether	3.61	ug/L			4.00	90	62 --- 137		
Ethylbenzene	3.91	ug/L			4.00	98	80 --- 121		
Hexachlorobutadiene	3.94	ug/L			4.00	98	71 --- 131		
Isopropylbenzene	3.85	ug/L			4.00	96	75 --- 122		
m & p-Xylene	7.75	ug/L			8.00	97	80 --- 121		
Methyl tert-butyl ether	3.52	ug/L			4.00	88	63 --- 135		
Methylene chloride	3.98	ug/L			4.00	100	38 --- 174		
n-Butylbenzene	3.95	ug/L			4.00	99	71 --- 125		
n-Propylbenzene	4.01	ug/L			4.00	100	76 --- 122		
Naphthalene	3.80	ug/L			4.00	95	64 --- 126		
o-Xylene	3.85	ug/L			4.00	96	77 --- 120		
p-Isopropyltoluene	4.01	ug/L			4.00	100	76 --- 122		
sec-Butylbenzene	3.92	ug/L			4.00	98	75 --- 122		
Styrene	3.80	ug/L			4.00	95	76 --- 121		
tert-Butylbenzene	3.93	ug/L			4.00	98	77 --- 120		
Tetrachloroethene	3.79	ug/L			4.00	95	75 --- 127		
Tetrahydrofuran	33.5	ug/L			40.0	84	60 --- 131		
Toluene	3.65	ug/L			4.00	91	80 --- 122		
trans-1,2-Dichloroethene	3.62	ug/L			4.00	90	68 --- 136		
trans-1,3-Dichloropropene	3.58	ug/L			4.00	90	65 --- 126		
Trichloroethene	3.69	ug/L			4.00	92	78 --- 126		
Trichlorofluoromethane	3.69	ug/L			4.00	92	70 --- 145		
Vinyl acetate	36.4	ug/L			40.0	91	38 --- 152		
Vinyl chloride	3.85	ug/L			4.00	96	71 --- 135		

Method Blank Water

Analytical Run #: 132322	Analysis Date: 11/09/2016	Prep Batch #:	Matrix: LIQUID
CTLab #: 808076	Analysis Time: 18:13	Prep Date/Time:	Method: SW8260C
Parent Sample #:	Analyst: RLD	Prep Analyst:	

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	0.04	ug/L		U	0		0.04		
1,1,1-Trichloroethane	0.05	ug/L		U	0		0.05		
1,1,2,2-Tetrachloroethane	0.017	ug/L		U	0		0.017		
1,1,2-Trichloroethane	0.05	ug/L		U	0		0.05		
1,1-Dichloroethane	0.06	ug/L		U	0		0.06		
1,1-Dichloroethene	0.06	ug/L		U	0		0.06		
1,1-Dichloropropene	0.06	ug/L		U	0		0.06		
1,2 Dichloroethane-d4	101	% Recovery			100	101	68 --- 120		
1,2,3-Trichlorobenzene	0.04	ug/L		U	0		0.04		
1,2,3-Trichloropropane	0.04	ug/L		U	0		0.04		
1,2,4-Trichlorobenzene	0.04	ug/L		U	0		0.04		
1,2,4-Trimethylbenzene	0.04	ug/L		U	0		0.04		
1,2-Dibromo-3-chloropropane	0.09	ug/L		U	0		0.09		
1,2-Dibromoethane	0.07	ug/L		U	0		0.07		
1,2-Dichlorobenzene	0.04	ug/L		U	0		0.04		
1,2-Dichloroethane	0.05	ug/L		U	0		0.05		
1,2-Dichloropropane	0.07	ug/L		U	0		0.07		
1,3,5-Trimethylbenzene	0.05	ug/L		U	0		0.05		
1,3-Dichlorobenzene	0.04	ug/L		U	0		0.04		
1,3-Dichloropropane	0.04	ug/L		U	0		0.04		
1,4-Dichlorobenzene	0.04	ug/L		U	0		0.04		
2,2-Dichloropropane	0.05	ug/L		U	0		0.05		
2-Butanone	0.5	ug/L		U	0		0.5		
2-Chlorotoluene	0.03	ug/L		U	0		0.03		
2-Hexanone	0.24	ug/L		U	0		0.24		
4-Chlorotoluene	0.04	ug/L		U	0		0.04		
4-Methyl-2-pentanone	0.24	ug/L		U	0		0.24		
Acetone	0.455	ug/L			0		0.30		
Benzene	0.018	ug/L		U	0		0.018		
Bromobenzene	0.04	ug/L		U	0		0.04		
Bromochloromethane	0.030	ug/L		U	0		0.030		
Bromodichloromethane	0.016	ug/L		U	0		0.016		
Bromofluorobenzene	98.0	% Recovery			100	98.0	68 --- 120		
Bromoform	0.04	ug/L		U	0		0.04		
Bromomethane	0.08	ug/L		U	0		0.08		
Carbon disulfide	0.07	ug/L		U	0		0.07		
Carbon tetrachloride	0.05	ug/L		U	0		0.05		
Chlorobenzene	0.04	ug/L		U	0		0.04		
Chloroethane	0.07	ug/L		U	0		0.07		
Chloroform	0.03	ug/L		U	0		0.03		
Chloromethane	0.04	ug/L		U	0		0.04		
cis-1,2-Dichloroethene	0.07	ug/L		U	0		0.07		

Method Blank Water

Analytical Run #:	132322	Analysis Date:	11/09/2016	Prep Batch #:	Matrix:	LIQUID
CTLab #:	808076	Analysis Time:	18:13	Prep Date/Time:	Method:	SW8260C
Parent Sample #:		Analyst:	RLD	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
cis-1,3-Dichloropropene	0.011	ug/L		U	0		0.011		
d8-Toluene	101	% Recovery			100	101	71 --- 117		
Dibromochloromethane	0.03	ug/L		U	0		0.03		
Dibromofluoromethane	103	% Recovery			100	103	67 --- 122		
Dibromomethane	0.05	ug/L		U	0		0.05		
Dichlorodifluoromethane	0.06	ug/L		U	0		0.06		
Diisopropyl ether	0.04	ug/L		U	0		0.04		
Ethylbenzene	0.04	ug/L		U	0		0.04		
Hexachlorobutadiene	0.05	ug/L		U	0		0.05		
Isopropylbenzene	0.04	ug/L		U	0		0.04		
m & p-Xylene	0.07	ug/L		U	0		0.07		
Methyl tert-butyl ether	0.04	ug/L		U	0		0.04		
Methylene chloride	0.05	ug/L		U	0		0.05		
n-Butylbenzene	0.03	ug/L		U	0		0.03		
n-Propylbenzene	0.04	ug/L		U	0		0.04		
Naphthalene	0.03	ug/L		U	0		0.03		
o-Xylene	0.04	ug/L		U	0		0.04		
p-Isopropyltoluene	0.04	ug/L		U	0		0.04		
sec-Butylbenzene	0.05	ug/L		U	0		0.05		
Styrene	0.03	ug/L		U	0		0.03		
tert-Butylbenzene	0.04	ug/L		U	0		0.04		
Tetrachloroethene	0.05	ug/L		U	0		0.05		
Tetrahydrofuran	0.4	ug/L		U	0		0.4		
Toluene	0.04	ug/L		U	0		0.04		
trans-1,2-Dichloroethene	0.04	ug/L		U	0		0.04		
trans-1,3-Dichloropropene	0.019	ug/L		U	0		0.019		
Trichloroethene	0.05	ug/L		U	0		0.05		
Trichlorofluoromethane	0.09	ug/L		U	0		0.09		
Vinyl acetate	0.22	ug/L		U	0		0.22		
Vinyl chloride	0.019	ug/L		U	0		0.019		

Matrix Spike Duplicate Water

Analytical Run #:	132322	Analysis Date:	11/10/2016	Prep Batch #:	Matrix:	GROUND WATER
CTLab #:	803808	Analysis Time:	03:25	Prep Date/Time:	Method:	SW8260C
Parent Sample #:	803807	Analyst:	RLD	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	3.45	ug/L	BDL		4.00	86	71 --- 136	1	21
1,1,1-Trichloroethane	3.58	ug/L	BDL		4.00	90	77 --- 150	0	20
1,1,2,2-Tetrachloroethane	3.17	ug/L	BDL		4.00	79	68 --- 139	15	22
1,1,2-Trichloroethane	3.11	ug/L	BDL		4.00	78	70 --- 139	13	25
1,1-Dichloroethane	3.43	ug/L	BDL		4.00	86	65 --- 149	1	25
1,1-Dichloroethene	3.63	ug/L	BDL		4.00	91	56 --- 164	1	24
1,1-Dichloropropene	3.70	ug/L	BDL		4.00	92	65 --- 146	1	21
1,2-Dichloroethane-d4	98.0	% Recovery			100	98.0	65 --- 128		7
1,2,3-Trichlorobenzene	3.59	ug/L	BDL		4.00	90	62 --- 135	7	31
1,2,3-Trichloropropane	2.63	ug/L	BDL		4.00	66	66 --- 145	11	26
1,2,4-Trichlorobenzene	3.61	ug/L	BDL		4.00	90	61 --- 132	6	29
1,2,4-Trimethylbenzene	3.50	ug/L	BDL		4.00	88	1 --- 154	2	36
1,2-Dibromo-3-chloropropane	2.80	ug/L	BDL		4.00	70	49 --- 144	14	34
1,2-Dibromoethane	3.26	ug/L	BDL		4.00	82	76 --- 132	6	22
1,2-Dichlorobenzene	3.59	ug/L	BDL		4.00	90	78 --- 128	5	23
1,2-Dichloroethane	3.23	ug/L	BDL		4.00	81	70 --- 147	7	21
1,2-Dichloropropane	3.40	ug/L	BDL		4.00	85	72 --- 138	2	19
1,3,5-Trimethylbenzene	3.64	ug/L	BDL		4.00	91	1 --- 151	1	34
1,3-Dichlorobenzene	3.63	ug/L	BDL		4.00	91	78 --- 127	5	22
1,3-Dichloropropane	3.08	ug/L	BDL		4.00	77	73 --- 136	11	23
1,4-Dichlorobenzene	3.69	ug/L	BDL		4.00	92	78 --- 127	3	22
2,2-Dichloropropane	3.19	ug/L	BDL		4.00	80	50 --- 165	2	21
2-Butanone	30.4	ug/L	BDL		40.0	76	45 --- 160	15	29
2-Chlorotoluene	3.63	ug/L	BDL		4.00	91	74 --- 130	3	20
2-Hexanone	30.8	ug/L	BDL		40.0	77	55 --- 143	17	28
4-Chlorotoluene	3.62	ug/L	BDL		4.00	90	57 --- 131	2	22
4-Methyl-2-pentanone	29.7	ug/L	BDL		40.0	74	58 --- 146	15	29
Acetone	23.3	ug/L	BDL		40.0	58	27 --- 172	14	39
Benzene	3.55	ug/L	BDL		4.00	89	81 --- 134	1	17
Bromobenzene	3.56	ug/L	BDL		4.00	89	80 --- 127	4	20
Bromochloromethane	3.23	ug/L	BDL		4.00	81	73 --- 143	4	22
Bromodichloromethane	3.09	ug/L	BDL		4.00	77	64 --- 139	2	20
Bromofluorobenzene	96.0	% Recovery			100	96.0	67 --- 120		7
Bromoform	2.59	ug/L	BDL		4.00	65	49 --- 125	7	28
Bromomethane	3.16	ug/L	BDL		4.00	79	59 --- 167	2	34
Carbon disulfide	7.13	ug/L	BDL		8.00	89	12 --- 140	3	31
Carbon tetrachloride	3.82	ug/L	BDL		4.00	96	74 --- 153	3	20
Chlorobenzene	3.61	ug/L	BDL		4.00	90	82 --- 130	2	21
Chloroethane	4.04	ug/L	BDL		4.00	101	64 --- 165	1	26
Chloroform	3.29	ug/L	BDL		4.00	82	73 --- 138	0	18
Chloromethane	3.72	ug/L	BDL		4.00	93	62 --- 157	2	21
cis-1,2-Dichloroethene	5.79	ug/L	2.3		4.00	87	75 --- 152	0	21

Matrix Spike Duplicate Water

Analytical Run #:	132322	Analysis Date:	11/10/2016	Prep Batch #:	Matrix:	GROUND WATER
CTLab #:	803808	Analysis Time:	03:25	Prep Date/Time:	Method:	SW8260C
Parent Sample #:	803807	Analyst:	RLD	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
cis-1,3-Dichloropropene	3.08	ug/L	BDL		4.00	77	61 --- 129	6	21
d8-Toluene	99.0	% Recovery			100	99.0	60 --- 119		7
Dibromochloromethane	3.04	ug/L	BDL		4.00	76	56 --- 130	5	23
Dibromofluoromethane	99.0	% Recovery			100	99.0	65 --- 128		7
Dibromomethane	3.14	ug/L	BDL		4.00	78	71 --- 142	7	21
Dichlorodifluoromethane	4.10	ug/L	BDL		4.00	102	62 --- 196	1	22
Diisopropyl ether	3.37	ug/L	BDL		4.00	84	46 --- 161	3	27
Ethylbenzene	3.67	ug/L	BDL		4.00	92	52 --- 139	0	24
Hexachlorobutadiene	3.83	ug/L	BDL		4.00	96	66 --- 147	8	30
Isopropylbenzene	3.71	ug/L	BDL		4.00	93	50 --- 135	1	24
m & p-Xylene	7.29	ug/L	BDL		8.00	91	1 --- 156	1	28
Methyl tert-butyl ether	3.78	ug/L	0.67		4.00	78	46 --- 161	7	33
Methylene chloride	3.44	ug/L	BDL		4.00	86	10 --- 181	2	36
n-Butylbenzene	3.77	ug/L	BDL		4.00	94	46 --- 144	4	24
n-Propylbenzene	3.76	ug/L	BDL		4.00	94	51 --- 139	1	23
Naphthalene	3.19	ug/L	BDL		4.00	80	45 --- 135	9	31
o-Xylene	3.54	ug/L	BDL		4.00	88	11 --- 148	0	26
p-Isopropyltoluene	3.73	ug/L	BDL		4.00	93	18 --- 148	4	27
sec-Butylbenzene	3.78	ug/L	BDL		4.00	94	57 --- 138	3	23
Styrene	3.40	ug/L	BDL		4.00	85	1 --- 159	3	40
tert-Butylbenzene	3.67	ug/L	BDL		4.00	92	74 --- 132	3	22
Tetrachloroethene	3.68	ug/L	BDL		4.00	92	79 --- 144	0	21
Tetrahydrofuran	27.9	ug/L	BDL		40.0	70	51 --- 139	14	28
Toluene	3.43	ug/L	BDL		4.00	86	56 --- 141	1	19
trans-1,2-Dichloroethene	3.70	ug/L	0.12		4.00	90	53 --- 161	3	28
trans-1,3-Dichloropropene	2.87	ug/L	BDL		4.00	72	57 --- 124	7	21
Trichloroethene	3.58	ug/L	0.11		4.00	87	74 --- 138	2	19
Trichlorofluoromethane	3.96	ug/L	BDL		4.00	99	83 --- 174	4	23
Vinyl acetate	29.7	ug/L	BDL		40.0	74	0 --- 198	9	25
Vinyl chloride	3.87	ug/L	BDL		4.00	97	65 --- 168	3	21

Matrix Spike Water

Analytical Run #:	132322	Analysis Date:	11/10/2016	Prep Batch #:	Matrix:	GROUND WATER
CTLab #:	803807	Analysis Time:	02:56	Prep Date/Time:	Method:	SW8260C
Parent Sample #:	798927	Analyst:	RLD	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	3.42	ug/L	BDL		4.00	86	71 --- 136		21
1,1,1-Trichloroethane	3.59	ug/L	BDL		4.00	90	77 --- 150		20
1,1,2,2-Tetrachloroethane	3.67	ug/L	BDL		4.00	92	68 --- 139		22
1,1,2-Trichloroethane	3.56	ug/L	BDL		4.00	89	70 --- 139		25
1,1-Dichloroethane	3.47	ug/L	BDL		4.00	87	65 --- 149		25
1,1-Dichloroethene	3.67	ug/L	BDL		4.00	92	56 --- 164		24
1,1-Dichloropropene	3.68	ug/L	BDL		4.00	92	65 --- 146		21
1,2-Dichloroethane-d4	103	% Recovery			100	103	65 --- 128		7
1,2,3-Trichlorobenzene	3.86	ug/L	BDL		4.00	96	62 --- 135		31
1,2,3-Trichloropropane	2.93	ug/L	BDL		4.00	73	66 --- 145		26
1,2,4-Trichlorobenzene	3.85	ug/L	BDL		4.00	96	61 --- 132		29
1,2,4-Trimethylbenzene	3.58	ug/L	BDL		4.00	90	1 --- 154		36
1,2-Dibromo-3-chloropropane	3.21	ug/L	BDL		4.00	80	49 --- 144		34
1,2-Dibromoethane	3.45	ug/L	BDL		4.00	86	76 --- 132		22
1,2-Dichlorobenzene	3.79	ug/L	BDL		4.00	95	78 --- 128		23
1,2-Dichloroethane	3.45	ug/L	BDL		4.00	86	70 --- 147		21
1,2-Dichloropropane	3.46	ug/L	BDL		4.00	86	72 --- 138		19
1,3,5-Trimethylbenzene	3.67	ug/L	BDL		4.00	92	1 --- 151		34
1,3-Dichlorobenzene	3.80	ug/L	BDL		4.00	95	78 --- 127		22
1,3-Dichloropropane	3.42	ug/L	BDL		4.00	86	73 --- 136		23
1,4-Dichlorobenzene	3.80	ug/L	BDL		4.00	95	78 --- 127		22
2,2-Dichloropropane	3.27	ug/L	BDL		4.00	82	50 --- 165		21
2-Butanone	35.3	ug/L	BDL		40.0	88	45 --- 160		29
2-Chlorotoluene	3.74	ug/L	BDL		4.00	94	74 --- 130		20
2-Hexanone	36.4	ug/L	BDL		40.0	91	55 --- 143		28
4-Chlorotoluene	3.69	ug/L	BDL		4.00	92	57 --- 131		22
4-Methyl-2-pentanone	34.6	ug/L	BDL		40.0	86	58 --- 146		29
Acetone	26.8	ug/L	BDL		40.0	67	27 --- 172		39
Benzene	3.50	ug/L	BDL		4.00	88	81 --- 134		17
Bromobenzene	3.72	ug/L	BDL		4.00	93	80 --- 127		20
Bromochloromethane	3.38	ug/L	BDL		4.00	84	73 --- 143		22
Bromodichloromethane	3.16	ug/L	BDL		4.00	79	64 --- 139		20
Bromofluorobenzene	97.0	% Recovery			100	97.0	67 --- 120		7
Bromoform	2.78	ug/L	BDL		4.00	70	49 --- 125		28
Bromomethane	3.09	ug/L	BDL		4.00	77	59 --- 167		34
Carbon disulfide	7.33	ug/L	BDL		8.00	92	12 --- 140		31
Carbon tetrachloride	3.72	ug/L	BDL		4.00	93	74 --- 153		20
Chlorobenzene	3.68	ug/L	BDL		4.00	92	82 --- 130		21
Chloroethane	4.01	ug/L	BDL		4.00	100	64 --- 165		26
Chloroform	3.30	ug/L	BDL		4.00	82	73 --- 138		18
Chloromethane	3.65	ug/L	BDL		4.00	91	62 --- 157		21
cis-1,2-Dichloroethene	5.80	ug/L	2.3		4.00	88	75 --- 152		21

Matrix Spike Water

Analytical Run #:	132322	Analysis Date:	11/10/2016	Prep Batch #:	Matrix:	GROUND WATER
CTLab #:	803807	Analysis Time:	02:56	Prep Date/Time:	Method:	SW8260C
Parent Sample #:	798927	Analyst:	RLD	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
cis-1,3-Dichloropropene	3.28	ug/L	BDL		4.00	82	61 --- 129		21
d8-Toluene	99.0	% Recovery			100	99.0	60 --- 119		7
Dibromochloromethane	3.20	ug/L	BDL		4.00	80	56 --- 130		23
Dibromofluoromethane	99.0	% Recovery			100	99.0	65 --- 128		7
Dibromomethane	3.37	ug/L	BDL		4.00	84	71 --- 142		21
Dichlorodifluoromethane	4.05	ug/L	BDL		4.00	101	62 --- 196		22
Diisopropyl ether	3.48	ug/L	BDL		4.00	87	46 --- 161		27
Ethylbenzene	3.66	ug/L	BDL		4.00	92	52 --- 139		24
Hexachlorobutadiene	4.14	ug/L	BDL		4.00	104	66 --- 147		30
Isopropylbenzene	3.68	ug/L	BDL		4.00	92	50 --- 135		24
m & p-Xylene	7.37	ug/L	BDL		8.00	92	1 --- 156		28
Methyl tert-butyl ether	4.06	ug/L	0.67		4.00	85	46 --- 161		33
Methylene chloride	3.50	ug/L	BDL		4.00	88	10 --- 181		36
n-Butylbenzene	3.94	ug/L	BDL		4.00	98	46 --- 144		24
n-Propylbenzene	3.81	ug/L	BDL		4.00	95	51 --- 139		23
Naphthalene	3.51	ug/L	BDL		4.00	88	45 --- 135		31
o-Xylene	3.55	ug/L	BDL		4.00	89	11 --- 148		26
p-Isopropyltoluene	3.87	ug/L	BDL		4.00	97	18 --- 148		27
sec-Butylbenzene	3.89	ug/L	BDL		4.00	97	57 --- 138		23
Styrene	3.50	ug/L	BDL		4.00	88	1 --- 159		40
tert-Butylbenzene	3.78	ug/L	BDL		4.00	94	74 --- 132		22
Tetrachloroethene	3.69	ug/L	BDL		4.00	92	79 --- 144		21
Tetrahydrofuran	32.2	ug/L	BDL		40.0	80	51 --- 139		28
Toluene	3.46	ug/L	BDL		4.00	86	56 --- 141		19
trans-1,2-Dichloroethene	3.59	ug/L	0.12		4.00	87	53 --- 161		28
trans-1,3-Dichloropropene	3.09	ug/L	BDL		4.00	77	57 --- 124		21
Trichloroethene	3.50	ug/L	0.11		4.00	85	74 --- 138		19
Trichlorofluoromethane	3.81	ug/L	BDL		4.00	95	83 --- 174		23
Vinyl acetate	32.6	ug/L	BDL		40.0	82	0 --- 198		25
Vinyl chloride	3.97	ug/L	BDL		4.00	99	65 --- 168		21

TETRA TECH

SDG #: 0

Folder #: 123362

Project Name: OCONOMOWOC
ELECTROPLATING
Project Number: 117-7413001.01

Lab Control Spike Water

Analytical Run #:	132540	Analysis Date:	11/10/2016	Prep Batch #:	60107	Matrix:	LIQUID
CTLab #:	803849	Analysis Time:	15:39	Prep Date/Time:	11/10/2016 09:00	Method:	RSK175
Parent Sample #:		Analyst:	agk	Prep Analyst:	AGK		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Acetylene	2.57	ug/L			3.07	84	70 --- 130		20
Ethane	4.68	ug/L			4.78	98	70 --- 130		20
Ethene	6.70	ug/L			6.79	99	65 --- 124		20
Methane	2.34	ug/L			2.30	102	70 --- 130		20

TETRA TECH

SDG #: 0

Folder #: 123362

Project Name: OCONOMOWOC
ELECTROPLATING
Project Number: 117-7413001.01

Method Blank Water

Analytical Run #:	132540	Analysis Date:	11/10/2016	Prep Batch #:	60107	Matrix:	LIQUID
CTLab #:	803848	Analysis Time:	16:09	Prep Date/Time:	11/10/2016 09:00	Method:	RSK175
Parent Sample #:		Analyst:	agk	Prep Analyst:	AGK		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Acetylene	0.23	ug/L		U	0		0.23		
Ethane	0.4	ug/L		U	0		0.4		
Ethene	0.5	ug/L		U	0		0.5		
Methane	0.4	ug/L		U	0		0.4		

TETRA TECH

SDG #: 0

Folder #: 123362

Project Name: OCONOMOWOC
ELECTROPLATING
Project Number: 117-7413001.01

Matrix Spike Duplicate Water

Analytical Run #:	132540	Analysis Date:	11/11/2016	Prep Batch #:	60107	Matrix:	GROUND WATER
CTLab #:	804769	Analysis Time:	14:21	Prep Date/Time:	11/10/2016 09:00	Method:	RSK175
Parent Sample #:	804768	Analyst:	agk	Prep Analyst:	AGK		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Acetylene	2.15	ug/L	BDL		3.07	70	70 --- 130	23	20
Ethane	3.68	ug/L	BDL		4.78	77	70 --- 130	11	20
Ethene	5.41	ug/L	BDL		6.79	80	41 --- 138	10	43
Methane	6.55	ug/L	6.9		2.30	0	70 --- 130	1	20

TETRA TECH

SDG #: 0

Folder #: 123362

Project Name: OCONOMOWOC
ELECTROPLATING
Project Number: 117-7413001.01

Matrix Spike Water

Analytical Run #:	132540	Analysis Date:	11/11/2016	Prep Batch #:	60107	Matrix:	GROUND WATER
CTLab #:	804768	Analysis Time:	14:03	Prep Date/Time:	11/10/2016 09:00	Method:	RSK175
Parent Sample #:	798967	Analyst:	agk	Prep Analyst:	AGK		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Acetylene	2.70	ug/L	BDL		3.07	88	70 --- 130		
Ethane	4.10	ug/L	BDL		4.78	86	70 --- 130		
Ethene	5.96	ug/L	BDL		6.79	88	41 --- 138		
Methane	6.62	ug/L	6.9		2.30	0	70 --- 130		

TETRA TECH

SDG #: 0

Folder #: 123362

Project Name: OCONOMOWOC

ELECTROPLATING

Project Number: 117-7413001.01

Lab Control Spike Water

Analytical Run #:	133155	Analysis Date:	11/09/2016	Prep Batch #:	Matrix:	LIQUID
CTLab #:	812411	Analysis Time:	16:46	Prep Date/Time:	Method:	SW8260C
Parent Sample #:		Analyst:	RLD	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
1,4-Dioxane	221	ug/L			200	110	70 --- 130		

TETRA TECH

SDG #: 0

Folder #: 123362

Project Name: OCONOMOWOC
ELECTROPLATING
Project Number: 117-7413001.01

Method Blank Water

Analytical Run #:	133155	Analysis Date:	11/09/2016	Prep Batch #:		Matrix:	LIQUID
CTLab #:	812421	Analysis Time:	18:13	Prep Date/Time:		Method:	SW8260C
Parent Sample #:		Analyst:	RLD	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
1,4-Dioxane	7	ug/L		U	0			7	

TETRA TECH

SDG #: 0

Folder #: 123362

Project Name: OCONOMOWOC
ELECTROPLATING
Project Number: 117-7413001.01

Matrix Spike Duplicate Water

Analytical Run #:	133155	Analysis Date:	11/10/2016	Prep Batch #:	Matrix:	GROUND WATER
CTLab #:	812525	Analysis Time:	03:25	Prep Date/Time:	Method:	SW8260C
Parent Sample #:	812524	Analyst:	RLD	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
1,4-Dioxane	157	ug/L	BDL		200	78	70 --- 130	13	20

TETRA TECH

SDG #: 0

Folder #: 123362

Project Name: OCONOMOWOC
ELECTROPLATING
Project Number: 117-7413001.01

Matrix Spike Water

Analytical Run #:	133155	Analysis Date:	11/10/2016	Prep Batch #:	Matrix:	GROUND WATER
CTLab #:	812524	Analysis Time:	02:56	Prep Date/Time:	Method:	SW8260C
Parent Sample #:	798927	Analyst:	RLD	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
1,4-Dioxane	137	ug/L			200	68	70 --- 130		20

Sample Condition Report

Folder #: 123362	Print Date / Time: 11/02/2016 14:11
Client: TETRA TECH	Received Date / Time / By: 11/02/2016 11::15 DJL
Project Name: OCONOMOWOC ELECTROPLATING	Log-In Date / Time / By: 11/02/2016 12::11 CHB
Project Phase:	Project #: 117-7413001.01 PM: BMS
Coolers: 5841	Temperature: 4.9C On Ice: Y
Custody Seals Present : Y	COC Present?: Y Complete? Y
Seal Intact?	Numbers: N/A
Ship Method: FEDEX	Tracking Number: 777613180382
Adequate Packaging: Y	Temp Blank Enclosed? Y

Notes: THE SAMPLES WERE RECEIVED IN GOOD CONDITION ON ICE.

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
798927 PW-08	VOA HCL	1	/	VOC
	VOA HCL	1	/	VOC
	VOA HCL	1	/	VOC
	Total # of Containers of Type (VOA HCL) = 3			

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
798928 PW-10	VOA HCL	1	/	VOC
	VOA HCL	1	/	VOC
	VOA HCL	1	/	VOC
	Total # of Containers of Type (VOA HCL) = 3			

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
798929 PW-07	VOA HCL	1	/	VOC
	VOA HCL	1	/	VOC
	VOA HCL	1	/	VOC
	Total # of Containers of Type (VOA HCL) = 3			

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
798943 MW-105B	UNPRES PL	1	/	ALK,Anions
	Total # of Containers of Type (UNPRES PL) = 1			

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
798943 MW-105B	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC

VOA HCL 1 / GAS,VOC
 VOA HCL 1 / GAS,VOC
 VOA HCL 1 / GAS,VOC
Total # of Containers of Type (VOA HCL) = 6

798943 MW-105B
 HNO3 1 / ICP
Total # of Containers of Type (HNO3) = 1

798943 MW-105B
 H2SO4 PL 1 / TOC
Total # of Containers of Type (H2SO4 PL) = 1

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
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798960 MW-105B
 HNO3 1 / ICP
Total # of Containers of Type (HNO3) = 1

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
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798961 MW-105D
 UNPRES PL 1 / ALK,Anions
Total # of Containers of Type (UNPRES PL) = 1

798961 MW-105D
 VOA HCL 1 / GAS,VOC
 VOA HCL 1 / GAS,VOC
 VOA HCL 1 / GAS,VOC
 VOA HCL 1 / GAS,VOC
 VOA HCL 1 / GAS,VOC
Total # of Containers of Type (VOA HCL) = 6

798961 MW-105D
 HNO3 1 / ICP
Total # of Containers of Type (HNO3) = 1

798961 MW-105D
 H2SO4 PL 1 / TOC
Total # of Containers of Type (H2SO4 PL) = 1

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
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798962 MW-105D
 HNO3 1 / ICP
Total # of Containers of Type (HNO3) = 1

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
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798963 MW-105S
 UNPRES PL 1 / ALK,Anions
Total # of Containers of Type (UNPRES PL) = 1

798963	MW-105S	VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		Total # of Containers of Type		(VOA HCL) = 6	

798963	MW-105S	HNO3	1	/	ICP
		Total # of Containers of Type		(HNO3) = 1	

798963	MW-105S	H2SO4 PL	1	/	TOC
		Total # of Containers of Type		(H2SO4 PL) = 1	

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests	
798964	MW-105S	HNO3	1	/	ICP
		Total # of Containers of Type		(HNO3) = 1	

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests	
798965	MW-105S DUP	UNPRES PL	1	/	ALK,Anions
		Total # of Containers of Type		(UNPRES PL) = 1	

798965	MW-105S DUP	VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		Total # of Containers of Type		(VOA HCL) = 6	

798965	MW-105S DUP	HNO3	1	/	ICP
		Total # of Containers of Type		(HNO3) = 1	

798965	MW-105S DUP	H2SO4 PL	1	/	TOC
		Total # of Containers of Type		(H2SO4 PL) = 1	

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests	
798966	MW-105S DUP	HNO3	1	/	ICP
		Total # of Containers of Type		(HNO3) = 1	

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
798967 MW-12S	UNPRES PL	1	/	ALK,Anions
	Total # of Containers of Type		(UNPRES PL) = 1	

798967 MW-12S	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	Total # of Containers of Type		(VOA HCL) = 6	

798967 MW-12S	HNO3	1	/	ICP
	Total # of Containers of Type		(HNO3) = 1	

798967 MW-12S	H2SO4 PL	1	/	TOC
	Total # of Containers of Type		(H2SO4 PL) = 1	

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
798968 MW-12S	HNO3	1	/	ICP
	Total # of Containers of Type		(HNO3) = 1	

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
798969 MW-12D	UNPRES PL	1	/	ALK,Anions
	Total # of Containers of Type		(UNPRES PL) = 1	

798969 MW-12D	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	Total # of Containers of Type		(VOA HCL) = 6	

798969 MW-12D	HNO3	1	/	ICP
	Total # of Containers of Type		(HNO3) = 1	

798969 MW-12D	H2SO4 PL	1	/	TOC
	Total # of Containers of Type		(H2SO4 PL) = 1	

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
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798970	MW-12D	HNO3	1	/	ICP
		Total # of Containers of Type	(HNO3) = 1		

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests	
798995	MW-12B	UNPRES PL	1	/	ALK,Anions
		Total # of Containers of Type	(UNPRES PL) = 1		

798995	MW-12B	VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		Total # of Containers of Type	(VOA HCL) = 6		

798995	MW-12B	HNO3	1	/	ICP
		Total # of Containers of Type	(HNO3) = 1		

798995	MW-12B	H2SO4 PL	1	/	TOC
		Total # of Containers of Type	(H2SO4 PL) = 1		

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests	
798996	MW-12B	HNO3	1	/	ICP
		Total # of Containers of Type	(HNO3) = 1		

798997	MW-13D	UNPRES PL	1	/	ALK,Anions
		Total # of Containers of Type	(UNPRES PL) = 1		

798997	MW-13D	VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		Total # of Containers of Type	(VOA HCL) = 6		

798997	MW-13D	HNO3	1	/	ICP
		Total # of Containers of Type	(HNO3) = 1		

798997	MW-13D	H2SO4 PL	1	/	TOC
		Total # of Containers of Type	(H2SO4 PL) = 1		
Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests	
798998	MW-13D	HNO3	1	/	ICP
		Total # of Containers of Type	(HNO3) = 1		
Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests	
798999	MW-13S	UNPRES PL	1	/	ALK,Anions
		Total # of Containers of Type	(UNPRES PL) = 1		
798999	MW-13S	VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		Total # of Containers of Type	(VOA HCL) = 6		
798999	MW-13S	HNO3	1	/	ICP
		Total # of Containers of Type	(HNO3) = 1		
798999	MW-13S	H2SO4 PL	1	/	TOC
		Total # of Containers of Type	(H2SO4 PL) = 1		
Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests	
799000	MW-13S	HNO3	1	/	ICP
		Total # of Containers of Type	(HNO3) = 1		
Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests	
799001	TW-2021	UNPRES PL	1	/	ALK,Anions
		Total # of Containers of Type	(UNPRES PL) = 1		
799001	TW-2021	VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		Total # of Containers of Type	(VOA HCL) = 6		

799001	TW-202I	HNO3	1	/	ICP
		Total # of Containers of Type	(HNO3) = 1		

799001	TW-202I	H2SO4 PL	1	/	TOC
		Total # of Containers of Type	(H2SO4 PL) = 1		

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
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799002	TW-202I	HNO3	1	/	ICP
		Total # of Containers of Type	(HNO3) = 1		

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
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799003	PW-04	VOA HCL	1	/	VOC
		VOA HCL	1	/	VOC
		VOA HCL	1	/	VOC
		Total # of Containers of Type	(VOA HCL) = 3		

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
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799004	TB-1	Trip Blank	1	/	VOC
		Trip Blank	1	/	VOC
		Trip Blank	1	/	VOC
		Total # of Containers of Type	(Trip Blank) = 3		

Condition Code Condition Description
 1 Sample Received OK

Company: **Tetra Tech**
 Project Contact: **Mark Mantney**
 Telephone: **262 792 1282**
 Project Name: **Oconomowoc Electroplatin**
 Project #: **117-7413001.01**
 Location: **Oconomowoc WI**
 Sampled By: **Kenley Kawalewski**

 Folder #: **123362**
 Company: **TETRA TECH**
 Project: **OCONOMOWOC ELEC**
 Logged By: **CTHP PMF BAF**

1230 Lange Court, Baraboo, WI 53913
 608-356-2760 Fax 608-356-2766
 www.ctlaboratories.com

Report To:
 EMAIL: **mark.mantney@tetratech.com**
 Company: **Tetra Tech**
 Address: **175 N Corporate Dr #100 Brookfield WI 53045**
 Invoice To:
 EMAIL:
 Company:
 Address:

Program:
 QSM RCRA SDWA NPDES
 Solid Waste Other
 PO #

*Party listed is responsible for payment of invoice as per CT Laboratories' terms and conditions

Client Special Instructions
Field filtered: ICP metals dissolved

Filtered? Y/N	ANALYSES REQUESTED										Total # Containers	Designated MS/MSD
	VOCS 8260 Low Level	TOC	RISK-175 Meth, eth, benz, eth, xylene	ICP metals total	ICP metals dissolved	sulfate, alk. chloride						

Turnaround Time
 Normal RUSH*
 Date Needed: _____
 Rush analysis requires prior CT Laboratories' approval
 Surcharges:
 24 hr 200%
 2-3 days 100%
 4-9 days 50%

Matrix:
 GW - groundwater SW - surface water WW - wastewater DW - drinking water
 S - soil/sediment SL - sludge A - air M - misc/waste

Collection		Matrix	Grab/Comp	Sample #	Sample ID Description	Filtered?	Fill in Spaces with Bottles per Test										Total # Containers	Designated MS/MSD	CT Lab ID # <small>Lab use only</small>
Date/Time	Time						1	2	3	4	5	6	7	8	9	10			
10-31	1420	GW	grab	1	PW-08	N	3										798927		
	1505			2	PW-10	N	3										798928		
	1540			3	PW-07	N	3										798929		
11-1	1040			4	MW-105B	Y	3	1	3	1	1	1					798943/960		
	1110			5	MW-105D	Y	3	1	3	1	1	1					798961/962		
	1205			6	MW-105S	Y	3	1	3	1	1	1					798963/964		
	1210			7	MW-105S DUP	Y	3	1	3	1	1	1					798965/966		
	1310			8	MW-12S	Y	3	1	3	1	1	1					798967/968		
	1340			9	MW-12D	Y	3	1	3	1	1	1					798969/970		
	1420			10	MW-12B	Y	3	1	3	1	1	1					798995/996		
	1505			11	MW-13D	Y	3	1	3	1	1	1					798997/998		
	1545			12	MW-13S	Y	3	1	3	1	1	1					798999/799000		

Relinquished By: **Kenley Kawalewski**
 Date/Time: **11-1-16 1830**
 Received by: _____
 Date/Time: _____

Received By: **[Signature]**
 Date/Time: **11-2-16 11:30**
 Received for laboratory by: **[Signature]**
 Date/Time: **11-2-16 11:15**

Lab Use Only
 Ice Present: **Yes** No
 Temp: **4.9** IR Gun # **16**
 Cooler # **5841**

CT Laboratories Terms and Conditions

Where a purchaser (Client) places an order for laboratory, consulting or sampling services from CT Laboratories (CTL), CTL shall provide the ordered services pursuant to these Terms and Conditions, and the related Quotation, or as agreed in a negotiated contract. In the absence of a written agreement to the contrary, the Order constitutes an acceptance by the Client of CTL's offer to do business under these Terms and Conditions, and an agreement to be bound by these Terms and Conditions. No contrary or additional terms and conditions expressed in a Client's document shall be deemed to become a part of the contract created upon acceptance of these Terms and Conditions, unless accepted by CTL in advance of the start of the project and in writing.

1. ORDERS AND RECEIPT OF SAMPLES (Sample Acceptance Policy)

1.1 The Client may place the Order (i.e., specify a Scope of Work) either by submitting a purchase order to CTL in writing, by telephone (confirmed in writing) or by negotiated contract. Whichever option the Client selects for placing the Order, the Order shall not be valid unless it contains sufficient specification to enable CTL to carry out the Client's requirements. It is the policy of CT Laboratories that samples not meeting the acceptance criteria, outlined in the NELAC standards and Section 5.8.3.2 of the DOD QSM, will not be accepted by the laboratory or will be qualified on the final report. All samples submitted to the laboratory must: (1) be accompanied by proper, full and complete documentation, including sample identification, location, date and time of collection, the collector's name, type of preservation (if any), type of sample, any special comments concerning the sample and any additional pertinent fields on the chain-of-custody. In the absence of any of the required information, the laboratory will attempt to contact the client to obtain the information; if unable to obtain the necessary information, the final report will be qualified. (2) be labeled appropriately with a unique sample identification written with indelible ink on water resistant labels. If the laboratory cannot determine the identity of a sample, it will be rejected and the client will be contacted for further instructions or resampling. (3) be in an appropriate sample container. If the container is inappropriate, the client will be contacted for further instructions or resampling. If analysis is possible, the final report will be qualified. CT Laboratories can provide a sampling guide containing approved containers and preservations for analytical methods required. (4) adhere to specified holding times. If samples are received with less than ½ the holding time remaining for the requested test, CT Laboratories will make its best effort to analyze the samples and notify the client. If holding times are exceeded, the final report will be qualified. (5) contain adequate sample volume to perform the necessary testing. If sufficient volume is not present, the sample will be rejected and the client will be contacted for further instructions or resampling. If samples show signs of damage, contamination or inadequate preservation, the client will be notified. If analysis can be performed, the final report will be qualified. If not, the samples will be rejected and the client notified for further instructions or resampling.

1.2 CT Laboratories must be supplied with complete written disclosure of the known or suspected presence of any hazardous substances, as defined by applicable federal or state law. Where any samples which were not accompanied by the required disclosure, cause interruptions in the lab's ability to process work due to contamination of instruments or work areas, the Client will be responsible for the costs of clean up and recovery.

1.3 Prior to Sample Acceptance, the entire risk of loss or damage to samples remains with the Client. In no event will CTL have any responsibility or liability for the action or inaction of any carrier shipping or delivering any sample to or from CTL's premises. Client is responsible to assure that any sample containing any hazardous substance which is to be delivered to CTL's premises will be packaged, labeled, transported and delivered properly and in accordance with applicable laws.

2. PAYMENT TERMS

2.1 Services performed by CTL will be in accordance with prices quoted and later confirmed in writing or as stated in the Price Schedule. Invoices may be submitted to Client upon completion of any sample delivery group. Payment in advance is required for all Clients except those whose credit has been established with CTL. For Clients with approved credit, payment terms are net 30 days from the date of invoice by CTL. All overdue payments are subject to an additional interest and service charge of one and one-half percent (1.5%) (or the maximum rate permissible by law, whichever is lesser) per month or portion thereof from the due date until the date of payment. All fees are charged or billed directly to the Client. The billing of a third party will not be accepted without a statement, signed by the third party that acknowledges and accepts payment responsibility. CTL may suspend work and withhold delivery of data under this order at any time in the event Client fails to make timely payment of its invoices. Client shall be responsible for all costs and expenses of collection including reasonable attorney's fees. CTL reserves the right to refuse to proceed with work at any time based upon an unfavorable Client credit report.

3. CHANGE ORDERS, TERMINATION

3.1 Changes to the Scope of Work, price, or result delivery date may be initiated by CTL after Sample Acceptance due to any condition which conflicts with analytical, QA or other protocols warranted in these Terms and Conditions. CTL will not proceed with such changes until an agreement with the Client is reached on the amount of any cost, schedule change or technical change to the Scope of Work, and such agreement is documented in writing.

3.2 Changes to the Scope of Work, including but not limited to increasing or decreasing the work, changing test and analysis specification or acceleration in the performance of the work may be initiated by the Client after sample acceptance. Such a change will be documented in writing and may result in a change in cost and turnaround time commitment. CTL's acceptance of such changes is contingent upon technical feasibility and operational capacity.

3.3 Suspension or termination of all or any part of the work may be initiated by the Client. CTL will be compensated consistent with Section 2 of these Terms and Conditions. CTL will complete all work in progress and be paid in full for all work completed.

4. WARRANTIES AND LIABILITY

4.1 Where applicable, CTL will use analytical methodologies which are in substantial conformity with published test methods. CTL has implemented these methods in its Laboratory Quality Manuals and referenced Standard Operating Procedures and where the nature or composition of the sample requires it, CTL reserves the right to deviate from these methodologies as necessary or appropriate, based on the reasonable judgment of CTL, which deviations, if any, will be made on a basis consistent with recognized standards of the industry and/or CTL's Laboratory Quality Manuals. Client may request that CTL perform according to a mutually agreed Quality Assurance Project Plan (QAPP). In the event that samples arrive prior to agreement on a QAPP, CTL will proceed with analyses under its standard Quality Manuals then in effect, and CTL will not be responsible for any resampling or other charges if work must be repeated to comply with a subsequently finalized QAPP.

4.2 CTL shall start preparation and/or analysis within holding times provided that Sample Acceptance occurs within 48 hours of sampling or 1/2 of the holding time for the test, whichever is less. Where resolution of inconsistencies leading to Sample Acceptance does not occur within this period, CTL will use its best efforts to meet holding times and will proceed with the work provided that, in CTL's judgment, the chain-of-custody or definition of the Scope of Work provide sufficient guidance. Reanalysis of samples to comply with CTL's Quality Manuals will be deemed to have met holding times provided the initial analysis was performed within the applicable holding time. Where reanalysis demonstrates that sample matrix interference is the cause of failure to meet any Quality Manual requirements, the warranty will be deemed to have been met.

4.3 CTL warrants that it possesses and maintains all licenses and certifications which are required to perform services under these Terms and Conditions provided that such requirements are specified in writing to CTL prior to Sample Acceptance. CTL will notify the Client in writing of any decertification or revocation of any license, or notice of either, which affects work in progress.

4.4 The warranty obligations set forth in Sections 4.1, 4.2 and 4.3 are the sole and exclusive warranties given by CTL in connection with any services performed by CTL or any Results generated from such services, and CTL gives and makes NO OTHER REPRESENTATION OR WARRANTY OF ANY KIND, EXPRESS OR IMPLIED. No representative of CTL is authorized to give or make any other representation or warranty or modify this warranty in any way.

4.5 Client's sole and exclusive remedy for the breach of warranty in connection with any services performed by CTL, will be limited to repeating any services performed, contingent on the Client's providing, at the request of CTL and at the Client's expense, additional sample(s) if necessary. Any reanalysis requested by the Client generating Results consistent with the original Results will be at the Client's expense. If resampling is necessary, CTL's liability for resampling costs will be limited to actual cost or one hundred or one hundred fifty dollars (\$150) per sample, whichever is less.

4.6 CTL's liability for any and all causes of action arising hereunder, whether based in contract, tort, warranty, negligence or otherwise, shall be limited to the lesser amount of compensation for the services performed or \$100,000. All claims, including those for negligence, shall be deemed waived unless suit thereon is filed within one year after CTL's completion of the services. Under no circumstances, whether arising in contract, tort (including negligence), or otherwise, shall CTL be responsible for loss of use, loss of profits, or for any special, indirect, incidental or consequential damages occasioned by the services performed or by application or use of the reports prepared.

4.7 In no event shall CTL have any responsibility or liability to the Client for any failure or delay in performance by CTL which results, directly or indirectly, in whole or in part, from any cause or circumstance beyond the reasonable control of CTL. Such causes and circumstances shall include, but not be limited to, acts of God, acts of Client, acts or orders of any governmental authority, strikes or other labor disputes, natural disasters, accidents, wars, civil disturbances, equipment breakdown, matrix interference or unknown highly contaminated samples that impact instrument operation, unavailability of supplies from actual suppliers, difficulties or delays in transportation, mail or delivery services, or any other cause beyond CTL's reasonable control.

5. RESULTS, WORK PRODUCT

5.1 Data or information provided to CTL or generated by services performed under this agreement shall only become the property of the Client upon receipt in full by CTL of payment for the whole Order. Ownership of any analytical method, QA/QC protocols, software programs or equipment developed by CTL for performance of work will be retained by CTL, and Client shall not disclose such information to any third party.

5.2 Data and sample materials provided by Client or at Client's request, and the result obtained by CTL shall be held in confidence (unless such information is generally available to the public or is in the public domain or Client has failed to pay CTL for all services rendered or is otherwise in breach of these Terms and Conditions), subject to any disclosure required by law or legal process.

5.3 Should the Results delivered by CTL be used by the Client or Client's client, even though subsequently determined not to meet the warranties described in these Terms and Conditions, then the compensation will be adjusted based upon mutual agreement. In no case shall the Client unreasonably withhold CTL's right to independently defend its data.

5.4 CTL reserves the right to subcontract services ordered by the Client to another laboratory or laboratories, if, in CTL's sole judgment, it is reasonably necessary, appropriate or advisable to do so, and with the Client's permission. CTL will in no way be liable for any subcontracted services and all applicable warranties, guarantees and insurance are those of the subcontracted laboratory.

5.5 CTL shall dispose of the Client's samples 30 days after the analytical report is issued, unless instructed to store them for an alternate period of time or to return such samples to the Client, in a manner consistent with U.S. Environmental Protection Agency regulations or other applicable Federal, state or local requirements. Any samples for projects that are canceled or not accepted, or for which return was requested, will be returned to the Client at their own expense. CTL reserves the right to return to the Client any sample or unused portion of a sample that is not within CTL's permitted capability or the capabilities of CTL's designated waste disposal vendor(s).

5.6 Unless a different time period is agreed to in any order under these Terms and Conditions, CTL agrees to retain all records for five (5) years.

5.7 In the event that CTL is required to respond to legal process related to services for Client, Client agrees to reimburse CTL for hourly charges for personnel involved in the response and attorney fees reasonably incurred in obtaining advice concerning the response, preparation to testify, and appearances related to the legal process, travel and all reasonable expenses associated with the litigation.

6. INSURANCE

6.1 CTL shall maintain in force during the performance of services under these Terms and Conditions, Workers' Compensation and Employer's Liability Insurance in accordance with the laws of the states having jurisdiction over CTL's employees who are engaged in the performance of the work. CTL shall also maintain during such period, Comprehensive General and Contractual Liability (limit of \$2,000,000 per occurrence/ aggregate), Comprehensive Automobile Liability, owned and hired, (\$1,000,000 combined single limit), and Professional/Pollution Liability Insurance (limit of \$5,000,000 per occurrence/aggregate). Any Client required changes to these limits or conditions may result in a change in cost to the Client.

7. AUDIT

7.1 Upon prior notice to CTL, the Client may audit and inspect CTL's records and accounts covering reimbursable costs related to work done for the Client, for a period of one (1) year after completion of the work. The purpose of any such audit shall be only for verification of such costs, and CTL shall not be required to provide access to cost records where prices are expressed as fixed fees or published unit prices

Company: Tetra Tech
 Project Contact: Mark Manthey
 Telephone: 262 792 1282
 Project Name: Oconomowoc Electroplating
 Project #: 117-7413001.01
 Location: Oconomowoc WI
 Sampled By: Ashley Kawalewski

CT LABORATORIES

1230 Lange Court, Baraboo, WI 53913
 608-356-2760 Fax 608-356-2766
 www.ctlaboratories.com

Report To:
 EMAIL: mark.manthey@tetratech.com
 Company: Tetra Tech
 Address: 175 N Corporate Dr #100
 Brookfield WI 53045
 Invoice To: *
 EMAIL:
 Company:
 Address:

Lab Use Only
 Place Header Sticker Here:

Program:
 QSM RCRA SDWA NPDES
 Solid Waste Other _____

PO #

*Party listed is responsible for payment of invoice as per CT Laboratories' terms and conditions

Client Special Instructions
 Field Filtered = ICP metals dissolved

Filtered? Y/N	ANALYSES REQUESTED										Total # Containers	Designated MS/MSD	
	VOC, SVOC, low level	RSK-175 meth, ethyl, acetyl, benzene	AIK, chloride, sulfate	TOC	ICP metal total	ICP metal dissolved							
Y													

Turnaround Time
 Normal RUSH*
 Date Needed: _____
 Rush analysis requires prior CT Laboratories' approval
 Surcharges:
 24 hr 200%
 2-3 days 100%
 4-9 days 50%

Matrix:
 GW - groundwater SW - surface water WW - wastewater DW - drinking water
 S - soil/sediment SL - sludge A - air M - misc/waste

Collection		Matrix	Grab/Comp	Sample #	Sample ID Description	Y	Fill in Spaces with Bottles per Test										Total # Containers	Designated MS/MSD	CT Lab ID # <i>Lab use only</i>
Date/Time	Time																		
11-1	1625	GW	grab	13	TW-202I	Y	3	3	1	1	1					10	799001002		
	1650			14	PW-04		3									3	779003		
		DI		15	TB-1		2									3	719004		

Relinquished By: Ashley Kawalewski
 Received by:

Date/Time: 11-1-16 1830
 Date/Time:

Received By: [Signature]
 Received for Laboratory by: [Signature]

Date/Time: 11-2-16 11:30
 Date/Time: 11-2-16 11:15

Lab Use Only
 Ice Present Yes No
 Temp 4.9 IR Gun 16
 Cooler # 5841

CT Laboratories Terms and Conditions

Where a purchaser (Client) places an order for laboratory, consulting or sampling services from CT Laboratories (CTL), CTL shall provide the ordered services pursuant to these Terms and Conditions, and the related Quotation, or as agreed in a negotiated contract. In the absence of a written agreement to the contrary, the Order constitutes an acceptance by the Client of CTL's offer to do business under these Terms and Conditions, and an agreement to be bound by these Terms and Conditions. No contrary or additional terms and conditions expressed in a Client's document shall be deemed to become a part of the contract created upon acceptance of these Terms and Conditions, unless accepted by CTL in advance of the start of the project and in writing.

1. ORDERS AND RECEIPT OF SAMPLES (Sample Acceptance Policy)

- 1.1 The Client may place the Order (i.e., specify a Scope of Work) either by submitting a purchase order to CTL in writing, by telephone (confirmed in writing) or by negotiated contract. Whichever option the Client selects for placing the Order, the Order shall not be valid unless it contains sufficient specification to enable CTL to carry out the Client's requirements. It is the policy of CT Laboratories that samples not meeting the acceptance criteria, outlined in the NELAC standards and Section 5.8.3.2 of the DOD QSM, will not be accepted by the laboratory or will be qualified on the final report. All samples submitted to the laboratory must: (1) be accompanied by proper, full and complete documentation, including sample identification, location, date and time of collection, the collector's name, type of preservation (if any), type of sample, any special comments concerning the sample and any additional pertinent fields on the chain-of-custody. In the absence of any of the required information, the laboratory will attempt to contact the client to obtain the information; if unable to obtain the necessary information, the final report will be qualified. (2) be labeled appropriately with a unique sample identification written with indelible ink on water resistant labels. If the laboratory cannot determine the identity of a sample, it will be rejected and the client will be contacted for further instructions or resampling. (3) be in an appropriate sample container. If the container is inappropriate, the client will be contacted for further instructions or resampling. If analysis is possible, the final report will be qualified. CT Laboratories can provide a sampling guide containing approved containers and preservations for analytical methods requested. (4) adhere to specified holding times. If samples are received with less than ½ the holding time remaining for the requested test, CT Laboratories will make its best effort to analyze the samples and notify the client. If holding times are exceeded, the final report will be qualified. (5) contain adequate sample volume to perform the necessary testing. If sufficient volume is not present, the sample will be rejected and the client will be contacted for further instructions or resampling. If samples show signs of damage, contamination or inadequate preservation, the client will be notified. If analysis can be performed, the final report will be qualified. If not, the samples will be rejected and the client notified for further instructions or resampling.
- 1.2 CT Laboratories must be supplied with complete written disclosure of the known or suspected presence of any hazardous substances, as defined by applicable federal or state law. Where any samples which were not accompanied by the required disclosure, cause interruptions in the lab's ability to process work due to contamination of instruments or work areas, the Client will be responsible for the costs of clean up and recovery.
- 1.3 Prior to Sample Acceptance, the entire risk of loss or damage to samples remains with the Client. In no event will CTL have any responsibility or liability for the action or inaction of any carrier shipping or delivering any sample to or from CTL's premises. Client is responsible to assure that any sample containing any hazardous substance which is to be delivered to CTL's premises will be packaged, labeled, transported and delivered properly and in accordance with applicable laws.

2. PAYMENT TERMS

- 2.1 Services performed by CTL will be in accordance with prices quoted and later confirmed in writing or as stated in the Price Schedule. Invoices may be submitted to Client upon completion of any sample delivery group. Payment in advance is required for all Clients except those whose credit has been established with CTL. For Clients with approved credit, payment terms are net 30 days from the date of invoice by CTL. All overdue payments are subject to an additional interest and service charge of one and one-half percent (1.5%) (or the maximum rate permissible by law, whichever is lesser) per month or portion thereof from the due date until the date of payment. All fees are charged or billed directly to the Client. The billing of a third party will not be accepted without a statement, signed by the third party that acknowledges and accepts payment responsibility. CTL may suspend work and withhold delivery of data under this order at any time in the event Client fails to make timely payment of its invoices. Client shall be responsible for all costs and expenses of collection including reasonable attorney's fees. CTL reserves the right to refuse to proceed with work at any time based upon an unfavorable Client credit report.

3. CHANGE ORDERS, TERMINATION

- 3.1 Changes to the Scope of Work, price, or result delivery date may be initiated by CTL after Sample Acceptance due to any condition which conflicts with analytical, QA or other protocols warranted in these Terms and Conditions. CTL will not proceed with such changes until an agreement with the Client is reached on the amount of any cost, schedule change or technical change to the Scope of Work, and such agreement is documented in writing.
- 3.2 Changes to the Scope of Work, including but not limited to increasing or decreasing the work, changing test and analysis specification or acceleration in the performance of the work may be initiated by the Client after sample acceptance. Such a change will be documented in writing and may result in a change in cost and turnaround time commitment. CTL's acceptance of such changes is contingent upon technical feasibility and operational capacity.
- 3.3 Suspension or termination of all or any part of the work may be initiated by the Client. CTL will be compensated consistent with Section 2 of these Terms and Conditions. CTL will complete all work in progress and be paid in full for all work completed.

4. WARRANTIES AND LIABILITY

- 4.1 Where applicable, CTL will use analytical methodologies which are in substantial conformity with published test methods. CTL has implemented these methods in its Laboratory Quality Manuals and referenced Standard Operating Procedures and where the nature or composition of the sample requires it, CTL reserves the right to deviate from these methodologies as necessary or appropriate, based on the reasonable judgment of CTL, which deviations, if any, will be made on a basis consistent with recognized standards of the industry and/or CTL's Laboratory Quality Manuals. Client may request that CTL perform according to a mutually agreed Quality Assurance Project Plan (QAPP). In the event that samples arrive prior to agreement on a QAPP, CTL will proceed with analyses under its standard Quality Manuals then in effect, and CTL will not be responsible for any resampling or other charges if work must be repeated to comply with a subsequently finalized QAPP.
- 4.2 CTL shall start preparation and/or analysis within holding times provided that Sample Acceptance occurs within 48 hours of sampling or 1/2 of the holding time for the test, whichever is less. Where resolution of inconsistencies leading to Sample Acceptance does not occur within this period, CTL will use its best efforts to meet holding times and will proceed with the work provided that, in CTL's judgment, the chain-of-custody or definition of the Scope of Work provide sufficient guidance. Reanalysis of samples to comply with CTL's Quality Manuals will be deemed to have met holding times provided the initial analysis was performed within the applicable holding time. Where reanalysis demonstrates that sample matrix interference is the cause of failure to meet any Quality Manual requirements, the warranty will be deemed to have been met.
- 4.3 CTL warrants that it possesses and maintains all licenses and certifications which are required to perform services under these Terms and Conditions provided that such requirements are specified in writing to CTL prior to Sample Acceptance. CTL will notify the Client in writing of any decertification or revocation of any license, or notice of either, which affects work in progress.
- 4.4 The warranty obligations set forth in Sections 4.1, 4.2 and 4.3 are the sole and exclusive warranties given by CTL in connection with any services performed by CTL or any Results generated from such services, and CTL gives and makes NO OTHER REPRESENTATION OR WARRANTY OF ANY KIND, EXPRESS OR IMPLIED. No representative of CTL is authorized to give or make any other representation or warranty or modify this warranty in any way.
- 4.5 Client's sole and exclusive remedy for the breach of warranty in connection with any services performed by CTL, will be limited to repeating any services performed, contingent on the Client's providing, at the request of CTL and at the Client's expense, additional sample(s) if necessary. Any reanalysis requested by the Client generating Results consistent with the original Results will be at the Client's expense. If resampling is necessary, CTL's liability for resampling costs will be limited to actual cost or one hundred or one hundred fifty dollars (\$150) per sample, whichever is less.
- 4.6 CTL's liability for any and all causes of action arising hereunder, whether based in contract, tort, warranty, negligence or otherwise, shall be limited to the lesser amount of compensation for the services performed or \$100,000. All claims, including those for negligence, shall be deemed waived unless suit thereon is filed within one year after CTL's completion of the services. Under no circumstances, whether arising in contract, tort (including negligence), or otherwise, shall CTL be responsible for loss of use, loss of profits, or for any special, indirect, incidental or consequential damages occasioned by the services performed or by application or use of the reports prepared.
- 4.7 In no event shall CTL have any responsibility or liability to the Client for any failure or delay in performance by CTL which results, directly or indirectly, in whole or in part, from any cause or circumstance beyond the reasonable control of CTL. Such causes and circumstances shall include, but not be limited to, acts of God, acts of Client, acts or orders of any governmental authority, strikes or other labor disputes, natural disasters, accidents, wars, civil disturbances, equipment breakdown, matrix interference or unknown highly contaminated samples that impact instrument operation, unavailability of supplies from usual suppliers, difficulties or delays in transportation, mail or delivery services, or any other cause beyond CTL's reasonable control.

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- 5.2 Data and sample materials provided by Client or at Client's request, and the result obtained by CTL shall be held in confidence (unless such information is generally available to the public or is in the public domain or Client has failed to pay CTL for all services rendered or is otherwise in breach of these Terms and Conditions), subject to any disclosure required by law or legal process.
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- 5.6 Unless a different time period is agreed to in any order under these Terms and Conditions, CTL agrees to retain all records for five (5) years.
- 5.7 In the event that CTL is required to respond to legal process related to services for Client, Client agrees to reimburse CTL for hourly charges for personnel involved in the response and attorney fees reasonably incurred in obtaining advice concerning the response, preparation to testify, and appearances related to the legal process, travel and all reasonable expenses associated with the litigation.

6. INSURANCE

- 6.1 CTL shall maintain in force during the performance of services under these Terms and Conditions, Workers' Compensation and Employer's Liability Insurance in accordance with the laws of the states having jurisdiction over CTL's employees who are engaged in the performance of the work. CTL shall also maintain during such period, Comprehensive General and Contractual Liability (limit of \$2,000,000 per occurrence/aggregate), Comprehensive Automobile Liability, owned and hired, (\$1,000,000 combined single limit), and Professional/Pollution Liability Insurance (limit of \$5,000,000 per occurrence/aggregate). Any Client required changes to these limits or conditions may result in a change in cost to the Client.

7. AUDIT

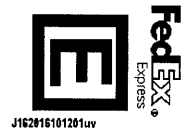
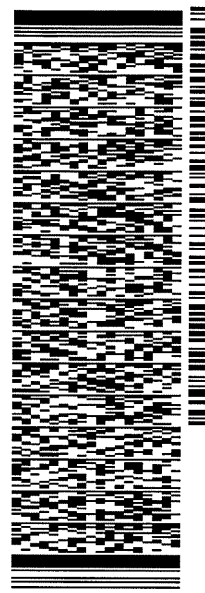
- 7.1 Upon prior notice to CTL, the Client may audit and inspect CTL's records and accounts covering reimbursable costs related to work done for the Client, for a period of one (1) year after completion of the work. The purpose of any such audit shall be only for verification of such costs, and CTL shall not be required to provide access to cost records where prices are expressed as fixed fees or published unit prices

ORIGIN ID:RRLA (262) 792-1282
ASHLEY KOMALEWSKI
TELRA TECH
175 N CORPORATE DRIVE
STE 100
BROOKFIELD, WI 53045
UNITED STATES US

SHIP DATE: 01NOV16
ACTWGT: 60.00 LB
CAD: 1104355/NET3790
DIMS: 24x14x15 IN
BILL SENDER

TO **BRETT SZYMANSKI**
CT LABORATORIES
1230 LANGE COURT

BARABOO WI 53913
(608) 356-2760 REF: 117:7413001:01
NAV DEPT



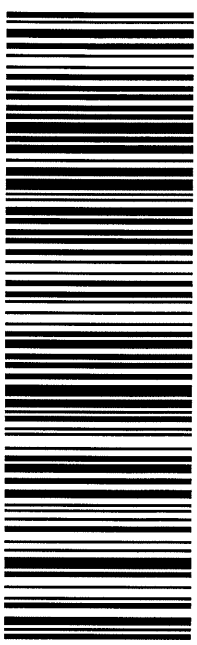
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TRK# 7776 1318 0382
0201

WED - 02 NOV 10:30A
PRIORITY OVERNIGHT
DSR

55 MSNA

WI-US **53913 MSN**



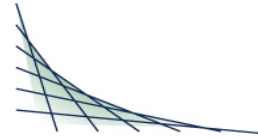
544J225C6/14E8

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number. Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

Ice Present Yes No
 Temperature 4.9
 Initials DL
 Date 11-2-16 Time 11:15
 Cooler # 5841



ANALYTICAL REPORT

This report at a minimum contains the following information:

- Analytical Report of Test Results
- Description of QC Qualifiers
- Chain of Custody (copy)
- Quality Control Summary
- Case Narrative (if applicable)
- Correspondence with Client (if applicable)

This report has been specifically prepared to satisfy project or program requirements. These results are in compliance with NELAC requirements for parameters where accreditation is required or available, unless otherwise noted in the case narrative.



ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase:
 Project #: 117-7413001.01
 Folder #: 123409
 Purchase Order #:
 Contract #: 2747

Page 1 of 5
 Arrival Temperature: 1.1
 Report Date: 11/30/2016
 Date Received: 11/03/2016
 Reprint Date: 11/30/2016

CT LAB#: 800068 Sample Description: PW-09

DNR License/Well #: 4189/056 Sampled: 11/02/2016 0935

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Organic Results										
1,1,1,2-Tetrachloroethane	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 09:40	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.050	ug/L	0.050	0.17	1	U		11/10/2016 09:40	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.017	ug/L	0.017	0.057	1	U		11/10/2016 09:40	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.050	ug/L	0.050	0.16	1	U		11/10/2016 09:40	RLD	EPA 8260C
1,1-Dichloroethane	<0.060	ug/L	0.060	0.19	1	U		11/10/2016 09:40	RLD	EPA 8260C
1,1-Dichloroethene	<0.060	ug/L	0.060	0.20	1	U		11/10/2016 09:40	RLD	EPA 8260C
1,1-Dichloropropene	<0.060	ug/L	0.060	0.19	1	U		11/10/2016 09:40	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 09:40	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.040	ug/L	0.040	0.14	1	U		11/10/2016 09:40	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.040	ug/L	0.040	0.12	1	U		11/10/2016 09:40	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.040	ug/L	0.040	0.12	1	U		11/10/2016 09:40	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.090	ug/L	0.090	0.29	1	U		11/10/2016 09:40	RLD	EPA 8260C
1,2-Dibromoethane	<0.070	ug/L	0.070	0.23	1	U		11/10/2016 09:40	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 09:40	RLD	EPA 8260C
1,2-Dichloroethane	<0.050	ug/L	0.050	0.18	1	U		11/10/2016 09:40	RLD	EPA 8260C
1,2-Dichloropropane	<0.070	ug/L	0.070	0.23	1	U		11/10/2016 09:40	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 800068 Sample Description:PW-09

DNR License/Well #: 4189/056

Sampled: 11/02/2016 0935

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,3,5-Trimethylbenzene	<0.050	ug/L	0.050	0.16	1	U		11/10/2016 09:40	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 09:40	RLD	EPA 8260C
1,3-Dichloropropane	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 09:40	RLD	EPA 8260C
1,4-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 09:40	RLD	EPA 8260C
2,2-Dichloropropane	<0.050	ug/L	0.050	0.15	1	U		11/10/2016 09:40	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.5	1	U		11/10/2016 09:40	RLD	EPA 8260C
2-Chlorotoluene	<0.030	ug/L	0.030	0.11	1	U		11/10/2016 09:40	RLD	EPA 8260C
2-Hexanone	<0.24	ug/L	0.24	0.81	1	U		11/10/2016 09:40	RLD	EPA 8260C
4-Chlorotoluene	<0.040	ug/L	0.040	0.12	1	U		11/10/2016 09:40	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.24	ug/L	0.24	0.82	1	U		11/10/2016 09:40	RLD	EPA 8260C
Acetone	<0.30	ug/L	0.30	1.0	1	U		11/10/2016 09:40	RLD	EPA 8260C
Benzene	0.025	ug/L	0.018	0.059	1	J		11/10/2016 09:40	RLD	EPA 8260C
Bromobenzene	<0.040	ug/L	0.040	0.15	1	U		11/10/2016 09:40	RLD	EPA 8260C
Bromochloromethane	<0.030	ug/L	0.030	0.099	1	U		11/10/2016 09:40	RLD	EPA 8260C
Bromodichloromethane	<0.016	ug/L	0.016	0.054	1	U		11/10/2016 09:40	RLD	EPA 8260C
Bromoform	<0.040	ug/L	0.040	0.12	1	U Z		11/10/2016 09:40	RLD	EPA 8260C
Bromomethane	<0.080	ug/L	0.080	0.28	1	U M		11/10/2016 09:40	RLD	EPA 8260C
Carbon disulfide	<0.070	ug/L	0.070	0.25	1	U		11/10/2016 09:40	RLD	EPA 8260C
Carbon tetrachloride	<0.050	ug/L	0.050	0.18	1	U		11/10/2016 09:40	RLD	EPA 8260C
Chlorobenzene	<0.040	ug/L	0.040	0.15	1	U		11/10/2016 09:40	RLD	EPA 8260C
Chloroethane	<0.070	ug/L	0.070	0.23	1	U		11/10/2016 09:40	RLD	EPA 8260C
Chloroform	<0.030	ug/L	0.030	0.11	1	U		11/10/2016 09:40	RLD	EPA 8260C
Chloromethane	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 09:40	RLD	EPA 8260C
cis-1,2-Dichloroethene	5.3	ug/L	0.070	0.23	1			11/10/2016 09:40	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.011	ug/L	0.011	0.038	1	U		11/10/2016 09:40	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1	U		11/10/2016 09:40	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 800068 Sample Description:PW-09

DNR License/Well #: 4189/056

Sampled: 11/02/2016 0935

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Dibromomethane	<0.050	ug/L	0.050	0.17	1	U		11/10/2016 09:40	RLD	EPA 8260C
Dichlorodifluoromethane	<0.060	ug/L	0.060	0.19	1	U		11/10/2016 09:40	RLD	EPA 8260C
Diisopropyl ether	<0.040	ug/L	0.040	0.14	1	U		11/10/2016 09:40	RLD	EPA 8260C
Ethylbenzene	<0.040	ug/L	0.040	0.15	1	U		11/10/2016 09:40	RLD	EPA 8260C
Hexachlorobutadiene	<0.050	ug/L	0.050	0.16	1	U		11/10/2016 09:40	RLD	EPA 8260C
Isopropylbenzene	<0.040	ug/L	0.040	0.12	1	U		11/10/2016 09:40	RLD	EPA 8260C
m & p-Xylene	<0.070	ug/L	0.070	0.23	1	U		11/10/2016 09:40	RLD	EPA 8260C
Methyl tert-butyl ether	0.65	ug/L	0.040	0.12	1			11/10/2016 09:40	RLD	EPA 8260C
Methylene chloride	<0.050	ug/L	0.050	0.16	1	U		11/10/2016 09:40	RLD	EPA 8260C
n-Butylbenzene	<0.030	ug/L	0.030	0.11	1	U		11/10/2016 09:40	RLD	EPA 8260C
n-Propylbenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 09:40	RLD	EPA 8260C
Naphthalene	<0.030	ug/L	0.030	0.10	1	U		11/10/2016 09:40	RLD	EPA 8260C
o-Xylene	<0.040	ug/L	0.040	0.14	1	U		11/10/2016 09:40	RLD	EPA 8260C
p-Isopropyltoluene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 09:40	RLD	EPA 8260C
sec-Butylbenzene	<0.050	ug/L	0.050	0.16	1	U		11/10/2016 09:40	RLD	EPA 8260C
Styrene	<0.030	ug/L	0.030	0.11	1	U		11/10/2016 09:40	RLD	EPA 8260C
tert-Butylbenzene	<0.040	ug/L	0.040	0.14	1	U		11/10/2016 09:40	RLD	EPA 8260C
Tetrachloroethene	<0.050	ug/L	0.050	0.18	1	U		11/10/2016 09:40	RLD	EPA 8260C
Tetrahydrofuran	<0.40	ug/L	0.40	1.5	1	U		11/10/2016 09:40	RLD	EPA 8260C
Toluene	0.13	ug/L	0.040	0.13	1			11/10/2016 09:40	RLD	EPA 8260C
trans-1,2-Dichloroethene	0.22	ug/L	0.040	0.14	1			11/10/2016 09:40	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.019	ug/L	0.019	0.063	1	U		11/10/2016 09:40	RLD	EPA 8260C
Trichloroethene	0.066	ug/L	0.050	0.17	1	J		11/10/2016 09:40	RLD	EPA 8260C
Trichlorofluoromethane	<0.090	ug/L	0.090	0.14	1	U		11/10/2016 09:40	RLD	EPA 8260C
Vinyl acetate	<0.22	ug/L	0.22	0.73	1	U		11/10/2016 09:40	RLD	EPA 8260C
Vinyl chloride	<0.019	ug/L	0.019	0.064	1	U		11/10/2016 09:40	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 800068 Sample Description:PW-09 DNR License/Well #: 4189/056 Sampled: 11/02/2016 0935

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,4-Dioxane	<7.0	ug/L	7.0	23	1	U		11/10/2016 09:40	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications
Kansas NELAP ID# E-10368
Kentucky ID# 0023
ISO/IEC 17025-2005 A2LA Cert # 3806.01
North Carolina ID# 674
Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID E8711111, Expires Annually
Louisiana ID # 115843
Virginia ID# 7608
Illinois NELAP ID # 002413
Wisconsin (WOSB) ID# WI-5499-WBE
Maryland ID# 344

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase:
 Project #: 117-7413001.01
 Folder #: 123409
 Purchase Order #:
 Contract #: 2747

Page 1 of 5
 Arrival Temperature: 1.1
 Report Date: 11/30/2016
 Date Received: 11/03/2016
 Reprint Date: 11/30/2016

CT LAB#: 800069	Sample Description: MW-4S	DNR License/Well #: 4189/007	Sampled: 11/02/2016 1040
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Field Results										
Dissolved Oxygen (Field)	0.86	mg/L	N/A	N/A	1			11/02/2016 00:00	BMS	
Depth to Groundwater (Field)	6.71	Feet	N/A	N/A	1			11/02/2016 00:00	BMS	
OX/REDOX (Field)	11	MV	N/A	N/A	1			11/02/2016 00:00	BMS	
Color (Field)	CLEAR		N/A	N/A	1			11/02/2016 00:00	BMS	FIELD
Conductivity (Field)	2020	umhos/cm	N/A	N/A	1			11/02/2016 00:00	BMS	FIELD
Groundwater Elevation (Field)	847.87	Feet MSL	N/A	N/A	1			11/02/2016 00:00	BMS	FIELD
pH (Field)	6.71	S.U.	N/A	N/A	1			11/02/2016 00:00	BMS	FIELD
Temperature (Field)	8.31	Deg. C	N/A	N/A	1			11/02/2016 00:00	BMS	FIELD
Turbidity (Field)	CLEAR		N/A	N/A	1			11/02/2016 00:00	BMS	FIELD
Inorganic Results										
Alkalinity Total	530	mg/L	5.0	18	1			11/11/2016 10:40	SAW	EPA 310.2
Total Chloride	300	mg/L	3.5	12	5	M		11/04/2016 17:11	JJF	EPA 9056A
Total Sulfate	85	mg/L	5.0	16	5	M		11/04/2016 17:11	JJF	EPA 9056A
Total Organic Carbon	4.8	mg/L	0.50	1.7	1			11/07/2016 18:21	JJF	EPA 9060A
Metals Results										

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis
 The depth to groundwater and groundwater elevation results listed above are from a previous sampling round and therefore incorrect.

CT LAB#: 800069 Sample Description:MW-4S

DNR License/Well #: 4189/007

Sampled: 11/02/2016 1040

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Total Iron	0.474	mg/L	0.034	0.11	1		11/08/2016 15:00	11/09/2016 22:10	NAH	EPA 6010C
Total Manganese	65.6	ug/L	3.4	11	1		11/08/2016 15:00	11/09/2016 22:10	NAH	EPA 6010C
Organic Results										
Acetylene	<0.23	ug/L	0.23	0.77	1	U	11/10/2016 09:00	11/11/2016 10:37	agk	Mod RSK 175
Ethane	<0.40	ug/L	0.40	1.2	1	U	11/10/2016 09:00	11/11/2016 10:37	agk	Mod RSK 175
Ethene	<0.50	ug/L	0.50	1.8	1	U	11/10/2016 09:00	11/11/2016 10:37	agk	Mod RSK 175
Methane	1.1	ug/L	0.40	1.2	1	J	11/10/2016 09:00	11/11/2016 10:37	agk	Mod RSK 175
1,1,1,2-Tetrachloroethane	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 10:09	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.050	ug/L	0.050	0.17	1	U		11/10/2016 10:09	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.017	ug/L	0.017	0.057	1	U		11/10/2016 10:09	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.050	ug/L	0.050	0.16	1	U		11/10/2016 10:09	RLD	EPA 8260C
1,1-Dichloroethane	<0.060	ug/L	0.060	0.19	1	U		11/10/2016 10:09	RLD	EPA 8260C
1,1-Dichloroethene	<0.060	ug/L	0.060	0.20	1	U		11/10/2016 10:09	RLD	EPA 8260C
1,1-Dichloropropene	<0.060	ug/L	0.060	0.19	1	U		11/10/2016 10:09	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 10:09	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.040	ug/L	0.040	0.14	1	U		11/10/2016 10:09	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.040	ug/L	0.040	0.12	1	U		11/10/2016 10:09	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.040	ug/L	0.040	0.12	1	U		11/10/2016 10:09	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.090	ug/L	0.090	0.29	1	U		11/10/2016 10:09	RLD	EPA 8260C
1,2-Dibromoethane	<0.070	ug/L	0.070	0.23	1	U		11/10/2016 10:09	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 10:09	RLD	EPA 8260C
1,2-Dichloroethane	<0.050	ug/L	0.050	0.18	1	U		11/10/2016 10:09	RLD	EPA 8260C
1,2-Dichloropropane	<0.070	ug/L	0.070	0.23	1	U		11/10/2016 10:09	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<0.050	ug/L	0.050	0.16	1	U		11/10/2016 10:09	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 10:09	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 800069 Sample Description:MW-4S

DNR License/Well #: 4189/007

Sampled: 11/02/2016 1040

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,3-Dichloropropane	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 10:09	RLD	EPA 8260C
1,4-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 10:09	RLD	EPA 8260C
2,2-Dichloropropane	<0.050	ug/L	0.050	0.15	1	U		11/10/2016 10:09	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.5	1	U		11/10/2016 10:09	RLD	EPA 8260C
2-Chlorotoluene	<0.030	ug/L	0.030	0.11	1	U		11/10/2016 10:09	RLD	EPA 8260C
2-Hexanone	<0.24	ug/L	0.24	0.81	1	U		11/10/2016 10:09	RLD	EPA 8260C
4-Chlorotoluene	<0.040	ug/L	0.040	0.12	1	U		11/10/2016 10:09	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.24	ug/L	0.24	0.82	1	U		11/10/2016 10:09	RLD	EPA 8260C
Acetone	<0.30	ug/L	0.30	1.0	1	U		11/10/2016 10:09	RLD	EPA 8260C
Benzene	<0.018	ug/L	0.018	0.059	1	U		11/10/2016 10:09	RLD	EPA 8260C
Bromobenzene	<0.040	ug/L	0.040	0.15	1	U		11/10/2016 10:09	RLD	EPA 8260C
Bromochloromethane	<0.030	ug/L	0.030	0.099	1	U		11/10/2016 10:09	RLD	EPA 8260C
Bromodichloromethane	<0.016	ug/L	0.016	0.054	1	U		11/10/2016 10:09	RLD	EPA 8260C
Bromoform	<0.040	ug/L	0.040	0.12	1	U Z		11/10/2016 10:09	RLD	EPA 8260C
Bromomethane	<0.080	ug/L	0.080	0.28	1	U		11/10/2016 10:09	RLD	EPA 8260C
Carbon disulfide	<0.070	ug/L	0.070	0.25	1	U		11/10/2016 10:09	RLD	EPA 8260C
Carbon tetrachloride	<0.050	ug/L	0.050	0.18	1	U		11/10/2016 10:09	RLD	EPA 8260C
Chlorobenzene	<0.040	ug/L	0.040	0.15	1	U		11/10/2016 10:09	RLD	EPA 8260C
Chloroethane	<0.070	ug/L	0.070	0.23	1	U		11/10/2016 10:09	RLD	EPA 8260C
Chloroform	<0.030	ug/L	0.030	0.11	1	U		11/10/2016 10:09	RLD	EPA 8260C
Chloromethane	0.079	ug/L	0.040	0.13	1	J		11/10/2016 10:09	RLD	EPA 8260C
cis-1,2-Dichloroethene	<0.070	ug/L	0.070	0.23	1	U		11/10/2016 10:09	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.011	ug/L	0.011	0.038	1	U		11/10/2016 10:09	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1	U		11/10/2016 10:09	RLD	EPA 8260C
Dibromomethane	<0.050	ug/L	0.050	0.17	1	U		11/10/2016 10:09	RLD	EPA 8260C
Dichlorodifluoromethane	<0.060	ug/L	0.060	0.19	1	U		11/10/2016 10:09	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 800069 Sample Description:MW-4S

DNR License/Well #: 4189/007

Sampled: 11/02/2016 1040

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Diisopropyl ether	<0.040	ug/L	0.040	0.14	1	U	11/10/2016 10:09	11/10/2016 10:09	RLD	EPA 8260C
Ethylbenzene	<0.040	ug/L	0.040	0.15	1	U	11/10/2016 10:09	11/10/2016 10:09	RLD	EPA 8260C
Hexachlorobutadiene	<0.050	ug/L	0.050	0.16	1	U	11/10/2016 10:09	11/10/2016 10:09	RLD	EPA 8260C
Isopropylbenzene	<0.040	ug/L	0.040	0.12	1	U	11/10/2016 10:09	11/10/2016 10:09	RLD	EPA 8260C
m & p-Xylene	<0.070	ug/L	0.070	0.23	1	U	11/10/2016 10:09	11/10/2016 10:09	RLD	EPA 8260C
Methyl tert-butyl ether	<0.040	ug/L	0.040	0.12	1	U	11/10/2016 10:09	11/10/2016 10:09	RLD	EPA 8260C
Methylene chloride	<0.050	ug/L	0.050	0.16	1	U	11/10/2016 10:09	11/10/2016 10:09	RLD	EPA 8260C
n-Butylbenzene	<0.030	ug/L	0.030	0.11	1	U	11/10/2016 10:09	11/10/2016 10:09	RLD	EPA 8260C
n-Propylbenzene	<0.040	ug/L	0.040	0.13	1	U	11/10/2016 10:09	11/10/2016 10:09	RLD	EPA 8260C
Naphthalene	<0.030	ug/L	0.030	0.10	1	U	11/10/2016 10:09	11/10/2016 10:09	RLD	EPA 8260C
o-Xylene	<0.040	ug/L	0.040	0.14	1	U	11/10/2016 10:09	11/10/2016 10:09	RLD	EPA 8260C
p-Isopropyltoluene	<0.040	ug/L	0.040	0.13	1	U	11/10/2016 10:09	11/10/2016 10:09	RLD	EPA 8260C
sec-Butylbenzene	<0.050	ug/L	0.050	0.16	1	U	11/10/2016 10:09	11/10/2016 10:09	RLD	EPA 8260C
Styrene	<0.030	ug/L	0.030	0.11	1	U	11/10/2016 10:09	11/10/2016 10:09	RLD	EPA 8260C
tert-Butylbenzene	<0.040	ug/L	0.040	0.14	1	U	11/10/2016 10:09	11/10/2016 10:09	RLD	EPA 8260C
Tetrachloroethene	<0.050	ug/L	0.050	0.18	1	U	11/10/2016 10:09	11/10/2016 10:09	RLD	EPA 8260C
Tetrahydrofuran	<0.40	ug/L	0.40	1.5	1	U	11/10/2016 10:09	11/10/2016 10:09	RLD	EPA 8260C
Toluene	<0.040	ug/L	0.040	0.13	1	U	11/10/2016 10:09	11/10/2016 10:09	RLD	EPA 8260C
trans-1,2-Dichloroethene	<0.040	ug/L	0.040	0.14	1	U	11/10/2016 10:09	11/10/2016 10:09	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.019	ug/L	0.019	0.063	1	U	11/10/2016 10:09	11/10/2016 10:09	RLD	EPA 8260C
Trichloroethene	<0.050	ug/L	0.050	0.17	1	U	11/10/2016 10:09	11/10/2016 10:09	RLD	EPA 8260C
Trichlorofluoromethane	<0.090	ug/L	0.090	0.14	1	U	11/10/2016 10:09	11/10/2016 10:09	RLD	EPA 8260C
Vinyl acetate	<0.22	ug/L	0.22	0.73	1	U	11/10/2016 10:09	11/10/2016 10:09	RLD	EPA 8260C
Vinyl chloride	<0.019	ug/L	0.019	0.064	1	U	11/10/2016 10:09	11/10/2016 10:09	RLD	EPA 8260C
1,4-Dioxane	<7.0	ug/L	7.0	23	1	U	11/10/2016 10:09	11/10/2016 10:09	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications

Kansas NELAP ID# E-10368
Kentucky ID# 0023
ISO/IEC 17025-2005 A2LA Cert # 3806.01
North Carolina ID# 674
Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID E871111, Expires Annually
Louisiana ID # 115843
Virginia ID# 7608
Illinois NELAP ID # 002413
Wisconsin (WOSB) ID# WI-5499-WBE
Maryland ID# 344

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase:
 Project #: 117-7413001.01
 Folder #: 123409
 Purchase Order #:
 Contract #: 2747

Page 1 of 2
 Arrival Temperature: 1.1
 Report Date: 11/30/2016
 Date Received: 11/03/2016
 Reprint Date: 11/30/2016

CT LAB#: 800070	Sample Description: MW-4S	DNR License/Well #: 4189/007	Sampled: 11/02/2016 1040
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Metals Results										
Dissolved Iron	<0.059	mg/L	0.059	0.20	1	U		11/08/2016 21:00	NAH	EPA 6010C
Dissolved Manganese	64.1	ug/L	2.2	7.3	1			11/08/2016 21:00	NAH	EPA 6010C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications
Kansas NELAP ID# E-10368
Kentucky ID# 0023
ISO/IEC 17025-2005 A2LA Cert # 3806.01
North Carolina ID# 674
Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID E871111, Expires Annually
Louisiana ID # 115843
Virginia ID# 7608
Illinois NELAP ID # 002413
Wisconsin (WOSB) ID# WI-5499-WBE
Maryland ID# 344

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase:
 Project #: 117-7413001.01
 Folder #: 123409
 Purchase Order #:
 Contract #: 2747

Page 1 of 5
 Arrival Temperature: 1.1
 Report Date: 11/30/2016
 Date Received: 11/03/2016
 Reprint Date: 11/30/2016

CT LAB#: 800071	Sample Description: MW-103S	DNR License/Well #: 4189/039	Sampled: 11/02/2016 1140
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Field Results										
Dissolved Oxygen (Field)	0.92	mg/L	N/A	N/A	1			11/02/2016 00:00	BMS	
Depth to Groundwater (Field)	5.61	Feet	N/A	N/A	1			11/02/2016 00:00	BMS	
OX/REDOX (Field)	165	MV	N/A	N/A	1			11/02/2016 00:00	BMS	
Color (Field)	CLEAR		N/A	N/A	1			11/02/2016 00:00	BMS	FIELD
Conductivity (Field)	883	umhos/cm	N/A	N/A	1			11/02/2016 00:00	BMS	FIELD
Groundwater Elevation (Field)	846.23	Feet MSL	N/A	N/A	1			11/02/2016 00:00	BMS	FIELD
pH (Field)	6.78	S.U.	N/A	N/A	1			11/02/2016 00:00	BMS	FIELD
Temperature (Field)	8.03	Deg. C	N/A	N/A	1			11/02/2016 00:00	BMS	FIELD
Turbidity (Field)	CLEAR		N/A	N/A	1			11/02/2016 00:00	BMS	FIELD
Inorganic Results										
Alkalinity Total	450	mg/L	5.0	18	1			11/11/2016 10:41	SAW	EPA 310.2
Total Chloride	68	mg/L	1.4	4.8	2			11/04/2016 13:43	JJF	EPA 9056A
Total Sulfate	35	mg/L	2.0	6.4	2			11/04/2016 13:43	JJF	EPA 9056A
Total Organic Carbon	6.0	mg/L	0.50	1.7	1			11/07/2016 18:34	JJF	EPA 9060A
Metals Results										

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

The depth to groundwater and groundwater elevation results listed above are from a previous sampling round and therefore incorrect.

CT LAB#: 800071 Sample Description:MW-103S

DNR License/Well #: 4189/039

Sampled: 11/02/2016 1140

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Total Iron	0.0400	mg/L	0.034	0.11	1	J	11/08/2016 15:00	11/09/2016 22:18	NAH	EPA 6010C
Total Manganese	274	ug/L	3.4	11	1		11/08/2016 15:00	11/09/2016 22:18	NAH	EPA 6010C
Organic Results										
Acetylene	<0.23	ug/L	0.23	0.77	1	U	11/10/2016 09:00	11/11/2016 10:50	agk	Mod RSK 175
Ethane	<0.40	ug/L	0.40	1.2	1	U	11/10/2016 09:00	11/11/2016 10:50	agk	Mod RSK 175
Ethene	<0.50	ug/L	0.50	1.8	1	U	11/10/2016 09:00	11/11/2016 10:50	agk	Mod RSK 175
Methane	7.7	ug/L	0.40	1.2	1		11/10/2016 09:00	11/11/2016 10:50	agk	Mod RSK 175
1,1,1,2-Tetrachloroethane	<0.40	ug/L	0.40	1.3	10	U		11/10/2016 16:56	RLD	EPA 8260C
1,1,1-Trichloroethane	37	ug/L	0.50	1.7	10			11/10/2016 16:56	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.17	ug/L	0.17	0.57	10	U		11/10/2016 16:56	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.50	ug/L	0.50	1.6	10	U		11/10/2016 16:56	RLD	EPA 8260C
1,1-Dichloroethane	5.1	ug/L	0.60	1.9	10			11/10/2016 16:56	RLD	EPA 8260C
1,1-Dichloroethene	2.0	ug/L	0.60	2.0	10			11/10/2016 16:56	RLD	EPA 8260C
1,1-Dichloropropene	<0.60	ug/L	0.60	1.9	10	U		11/10/2016 16:56	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.40	ug/L	0.40	1.3	10	U		11/10/2016 16:56	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.40	ug/L	0.40	1.4	10	U		11/10/2016 16:56	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.40	ug/L	0.40	1.2	10	U		11/10/2016 16:56	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.40	ug/L	0.40	1.2	10	U		11/10/2016 16:56	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.90	ug/L	0.90	2.9	10	U		11/10/2016 16:56	RLD	EPA 8260C
1,2-Dibromoethane	<0.70	ug/L	0.70	2.3	10	U		11/10/2016 16:56	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.40	ug/L	0.40	1.3	10	U		11/10/2016 16:56	RLD	EPA 8260C
1,2-Dichloroethane	<0.50	ug/L	0.50	1.8	10	U		11/10/2016 16:56	RLD	EPA 8260C
1,2-Dichloropropane	<0.70	ug/L	0.70	2.3	10	U		11/10/2016 16:56	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<0.50	ug/L	0.50	1.6	10	U		11/10/2016 16:56	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.40	ug/L	0.40	1.3	10	U		11/10/2016 16:56	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 800071 Sample Description:MW-103S

DNR License/Well #: 4189/039

Sampled: 11/02/2016 1140

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,3-Dichloropropane	<0.40	ug/L	0.40	1.3	10	U		11/10/2016 16:56	RLD	EPA 8260C
1,4-Dichlorobenzene	<0.40	ug/L	0.40	1.3	10	U		11/10/2016 16:56	RLD	EPA 8260C
2,2-Dichloropropane	<0.50	ug/L	0.50	1.5	10	U		11/10/2016 16:56	RLD	EPA 8260C
2-Butanone	<5.0	ug/L	5.0	15	10	U		11/10/2016 16:56	RLD	EPA 8260C
2-Chlorotoluene	<0.30	ug/L	0.30	1.1	10	U		11/10/2016 16:56	RLD	EPA 8260C
2-Hexanone	<2.4	ug/L	2.4	8.1	10	U		11/10/2016 16:56	RLD	EPA 8260C
4-Chlorotoluene	<0.40	ug/L	0.40	1.2	10	U		11/10/2016 16:56	RLD	EPA 8260C
4-Methyl-2-pentanone	<2.4	ug/L	2.4	8.2	10	U		11/10/2016 16:56	RLD	EPA 8260C
Acetone	<3.0	ug/L	3.0	10	10	U		11/10/2016 16:56	RLD	EPA 8260C
Benzene	0.31	ug/L	0.18	0.59	10	J		11/10/2016 16:56	RLD	EPA 8260C
Bromobenzene	<0.40	ug/L	0.40	1.5	10	U		11/10/2016 16:56	RLD	EPA 8260C
Bromochloromethane	<0.30	ug/L	0.30	0.99	10	U		11/10/2016 16:56	RLD	EPA 8260C
Bromodichloromethane	<0.16	ug/L	0.16	0.54	10	U		11/10/2016 16:56	RLD	EPA 8260C
Bromoform	<0.40	ug/L	0.40	1.2	10	U Z		11/10/2016 16:56	RLD	EPA 8260C
Bromomethane	<0.80	ug/L	0.80	2.8	10	U		11/10/2016 16:56	RLD	EPA 8260C
Carbon disulfide	<0.70	ug/L	0.70	2.5	10	U		11/10/2016 16:56	RLD	EPA 8260C
Carbon tetrachloride	<0.50	ug/L	0.50	1.8	10	U		11/10/2016 16:56	RLD	EPA 8260C
Chlorobenzene	1.4	ug/L	0.40	1.5	10	J		11/10/2016 16:56	RLD	EPA 8260C
Chloroethane	<0.70	ug/L	0.70	2.3	10	U		11/10/2016 16:56	RLD	EPA 8260C
Chloroform	<0.30	ug/L	0.30	1.1	10	U		11/10/2016 16:56	RLD	EPA 8260C
Chloromethane	<0.40	ug/L	0.40	1.3	10	U		11/10/2016 16:56	RLD	EPA 8260C
cis-1,2-Dichloroethene	13	ug/L	0.70	2.3	10			11/10/2016 16:56	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.11	ug/L	0.11	0.38	10	U		11/10/2016 16:56	RLD	EPA 8260C
Dibromochloromethane	<0.30	ug/L	0.30	1.0	10	U		11/10/2016 16:56	RLD	EPA 8260C
Dibromomethane	<0.50	ug/L	0.50	1.7	10	U		11/10/2016 16:56	RLD	EPA 8260C
Dichlorodifluoromethane	<0.60	ug/L	0.60	1.9	10	U		11/10/2016 16:56	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 800071 Sample Description:MW-103S

DNR License/Well #: 4189/039

Sampled: 11/02/2016 1140

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Diisopropyl ether	<0.40	ug/L	0.40	1.4	10	U		11/10/2016 16:56	RLD	EPA 8260C
Ethylbenzene	<0.40	ug/L	0.40	1.5	10	U		11/10/2016 16:56	RLD	EPA 8260C
Hexachlorobutadiene	<0.50	ug/L	0.50	1.6	10	U		11/10/2016 16:56	RLD	EPA 8260C
Isopropylbenzene	<0.40	ug/L	0.40	1.2	10	U		11/10/2016 16:56	RLD	EPA 8260C
m & p-Xylene	<0.70	ug/L	0.70	2.3	10	U		11/10/2016 16:56	RLD	EPA 8260C
Methyl tert-butyl ether	<0.40	ug/L	0.40	1.2	10	U		11/10/2016 16:56	RLD	EPA 8260C
Methylene chloride	<0.50	ug/L	0.50	1.6	10	U		11/10/2016 16:56	RLD	EPA 8260C
n-Butylbenzene	<0.30	ug/L	0.30	1.1	10	U		11/10/2016 16:56	RLD	EPA 8260C
n-Propylbenzene	<0.40	ug/L	0.40	1.3	10	U		11/10/2016 16:56	RLD	EPA 8260C
Naphthalene	<0.30	ug/L	0.30	1.0	10	U		11/10/2016 16:56	RLD	EPA 8260C
o-Xylene	<0.40	ug/L	0.40	1.4	10	U		11/10/2016 16:56	RLD	EPA 8260C
p-Isopropyltoluene	<0.40	ug/L	0.40	1.3	10	U		11/10/2016 16:56	RLD	EPA 8260C
sec-Butylbenzene	<0.50	ug/L	0.50	1.6	10	U		11/10/2016 16:56	RLD	EPA 8260C
Styrene	<0.30	ug/L	0.30	1.1	10	U		11/10/2016 16:56	RLD	EPA 8260C
tert-Butylbenzene	<0.40	ug/L	0.40	1.4	10	U		11/10/2016 16:56	RLD	EPA 8260C
Tetrachloroethene	17	ug/L	0.50	1.8	10			11/10/2016 16:56	RLD	EPA 8260C
Tetrahydrofuran	4.4	ug/L	4.0	15	10	J B		11/10/2016 16:56	RLD	EPA 8260C
Toluene	<0.40	ug/L	0.40	1.3	10	U		11/10/2016 16:56	RLD	EPA 8260C
trans-1,2-Dichloroethene	0.55	ug/L	0.40	1.4	10	J		11/10/2016 16:56	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.19	ug/L	0.19	0.63	10	U		11/10/2016 16:56	RLD	EPA 8260C
Trichloroethene	110	ug/L	0.50	1.7	10			11/10/2016 16:56	RLD	EPA 8260C
Trichlorofluoromethane	<0.90	ug/L	0.90	1.4	10	U		11/10/2016 16:56	RLD	EPA 8260C
Vinyl acetate	<2.2	ug/L	2.2	7.3	10	U		11/10/2016 16:56	RLD	EPA 8260C
Vinyl chloride	0.44	ug/L	0.19	0.64	10	J		11/10/2016 16:56	RLD	EPA 8260C
1,4-Dioxane	<70	ug/L	70	230	10	U		11/10/2016 16:56	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

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Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

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ISO/IEC 17025-2005 A2LA Cert # 3806.01
North Carolina ID# 674
Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID E871111, Expires Annually
Louisiana ID # 115843
Virginia ID# 7608
Illinois NELAP ID # 002413
Wisconsin (WOSB) ID# WI-5499-WBE
Maryland ID# 344

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase:
 Project #: 117-7413001.01
 Folder #: 123409
 Purchase Order #:
 Contract #: 2747

Page 1 of 2
 Arrival Temperature: 1.1
 Report Date: 11/30/2016
 Date Received: 11/03/2016
 Reprint Date: 11/30/2016

CT LAB#: 800072	Sample Description: MW-103S	DNR License/Well #: 4189/039	Sampled: 11/02/2016 1140
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Metals Results										
Dissolved Iron	<0.059	mg/L	0.059	0.20	1	U		11/08/2016 21:08	NAH	EPA 6010C
Dissolved Manganese	319	ug/L	2.2	7.3	1			11/08/2016 21:08	NAH	EPA 6010C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

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Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

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Kansas NELAP ID# E-10368
Kentucky ID# 0023
ISO/IEC 17025-2005 A2LA Cert # 3806.01
North Carolina ID# 674
Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID E8711111, Expires Annually
Louisiana ID # 115843
Virginia ID# 7608
Illinois NELAP ID # 002413
Wisconsin (WOSB) ID# WI-5499-WBE
Maryland ID# 344

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase:
 Project #: 117-7413001.01
 Folder #: 123409
 Purchase Order #:
 Contract #: 2747

Page 1 of 5
 Arrival Temperature: 1.1
 Report Date: 11/30/2016
 Date Received: 11/03/2016
 Reprint Date: 11/30/2016

CT LAB#: 800073 Sample Description: MW-103D

DNR License/Well #: 4189/040 Sampled: 11/02/2016 1215

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Field Results										
Dissolved Oxygen (Field)	0	mg/L	N/A	N/A	1			11/02/2016 00:00	BMS	
Depth to Groundwater (Field)	5.65	Feet	N/A	N/A	1			11/02/2016 00:00	BMS	
OX/REDOX (Field)	4.00	MV	N/A	N/A	1			11/02/2016 00:00	BMS	
Color (Field)	CLEAR		N/A	N/A	1			11/02/2016 00:00	BMS	FIELD
Conductivity (Field)	1290	umhos/cm	N/A	N/A	1			11/02/2016 00:00	BMS	FIELD
Groundwater Elevation (Field)	846.32	Feet MSL	N/A	N/A	1			11/02/2016 00:00	BMS	FIELD
pH (Field)	6.81	S.U.	N/A	N/A	1			11/02/2016 00:00	BMS	FIELD
Temperature (Field)	6.87	Deg. C	N/A	N/A	1			11/02/2016 00:00	BMS	FIELD
Turbidity (Field)	CLEAR		N/A	N/A	1			11/02/2016 00:00	BMS	FIELD
Inorganic Results										
Alkalinity Total	470	mg/L	5.0	18	1			11/11/2016 10:42	SAW	EPA 310.2
Total Chloride	160	mg/L	1.4	4.8	2			11/04/2016 14:04	JJF	EPA 9056A
Total Sulfate	68	mg/L	2.0	6.4	2			11/04/2016 14:04	JJF	EPA 9056A
Total Organic Carbon	5.4	mg/L	0.50	1.7	1			11/07/2016 18:47	JJF	EPA 9060A
Metals Results										

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis
 The depth to groundwater and groundwater elevation results listed above are from a previous sampling round and therefore incorrect.

CT LAB#: 800073 Sample Description:MW-103D

DNR License/Well #: 4189/040

Sampled: 11/02/2016 1215

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Total Iron	0.0831	mg/L	0.034	0.11	1	J	11/08/2016 15:00	11/09/2016 22:25	NAH	EPA 6010C
Total Manganese	403	ug/L	3.4	11	1		11/08/2016 15:00	11/09/2016 22:25	NAH	EPA 6010C
Organic Results										
Acetylene	<0.23	ug/L	0.23	0.77	1	U	11/10/2016 09:00	11/11/2016 11:06	agk	Mod RSK 175
Ethane	<0.40	ug/L	0.40	1.2	1	U	11/10/2016 09:00	11/11/2016 11:06	agk	Mod RSK 175
Ethene	<0.50	ug/L	0.50	1.8	1	U	11/10/2016 09:00	11/11/2016 11:06	agk	Mod RSK 175
Methane	7.9	ug/L	0.40	1.2	1		11/10/2016 09:00	11/11/2016 11:06	agk	Mod RSK 175
1,1,1,2-Tetrachloroethane	<0.80	ug/L	0.80	2.6	20	U		11/11/2016 04:19	RLD	EPA 8260C
1,1,1-Trichloroethane	36	ug/L	1.0	3.4	20			11/11/2016 04:19	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.34	ug/L	0.34	1.1	20	U		11/11/2016 04:19	RLD	EPA 8260C
1,1,2-Trichloroethane	<1.0	ug/L	1.0	3.2	20	U		11/11/2016 04:19	RLD	EPA 8260C
1,1-Dichloroethane	5.8	ug/L	1.2	3.8	20			11/11/2016 04:19	RLD	EPA 8260C
1,1-Dichloroethene	1.5	ug/L	1.2	4.0	20	J		11/11/2016 04:19	RLD	EPA 8260C
1,1-Dichloropropene	<1.2	ug/L	1.2	3.8	20	U		11/11/2016 04:19	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.80	ug/L	0.80	2.6	20	U		11/11/2016 04:19	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.80	ug/L	0.80	2.8	20	U		11/11/2016 04:19	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.80	ug/L	0.80	2.4	20	U		11/11/2016 04:19	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.80	ug/L	0.80	2.4	20	U		11/11/2016 04:19	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<1.8	ug/L	1.8	5.8	20	U		11/11/2016 04:19	RLD	EPA 8260C
1,2-Dibromoethane	<1.4	ug/L	1.4	4.6	20	U		11/11/2016 04:19	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.80	ug/L	0.80	2.6	20	U		11/11/2016 04:19	RLD	EPA 8260C
1,2-Dichloroethane	<1.0	ug/L	1.0	3.6	20	U		11/11/2016 04:19	RLD	EPA 8260C
1,2-Dichloropropane	<1.4	ug/L	1.4	4.6	20	U		11/11/2016 04:19	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<1.0	ug/L	1.0	3.2	20	U		11/11/2016 04:19	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.80	ug/L	0.80	2.6	20	U		11/11/2016 04:19	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 800073 Sample Description: MW-103D

DNR License/Well #: 4189/040

Sampled: 11/02/2016 1215

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,3-Dichloropropane	<0.80	ug/L	0.80	2.6	20	U		11/11/2016 04:19	RLD	EPA 8260C
1,4-Dichlorobenzene	<0.80	ug/L	0.80	2.6	20	U		11/11/2016 04:19	RLD	EPA 8260C
2,2-Dichloropropane	<1.0	ug/L	1.0	3.0	20	U		11/11/2016 04:19	RLD	EPA 8260C
2-Butanone	<10	ug/L	10	30	20	U		11/11/2016 04:19	RLD	EPA 8260C
2-Chlorotoluene	<0.60	ug/L	0.60	2.2	20	U		11/11/2016 04:19	RLD	EPA 8260C
2-Hexanone	<4.8	ug/L	4.8	16	20	U		11/11/2016 04:19	RLD	EPA 8260C
4-Chlorotoluene	<0.80	ug/L	0.80	2.4	20	U		11/11/2016 04:19	RLD	EPA 8260C
4-Methyl-2-pentanone	<4.8	ug/L	4.8	16	20	U		11/11/2016 04:19	RLD	EPA 8260C
Acetone	<6.0	ug/L	6.0	20	20	U		11/11/2016 04:19	RLD	EPA 8260C
Benzene	<0.36	ug/L	0.36	1.2	20	U		11/11/2016 04:19	RLD	EPA 8260C
Bromobenzene	<0.80	ug/L	0.80	3.0	20	U		11/11/2016 04:19	RLD	EPA 8260C
Bromochloromethane	<0.60	ug/L	0.60	2.0	20	U		11/11/2016 04:19	RLD	EPA 8260C
Bromodichloromethane	<0.32	ug/L	0.32	1.1	20	U		11/11/2016 04:19	RLD	EPA 8260C
Bromoform	<0.80	ug/L	0.80	2.4	20	U Z		11/11/2016 04:19	RLD	EPA 8260C
Bromomethane	<1.6	ug/L	1.6	5.6	20	U Z		11/11/2016 04:19	RLD	EPA 8260C
Carbon disulfide	<1.4	ug/L	1.4	5.0	20	U		11/11/2016 04:19	RLD	EPA 8260C
Carbon tetrachloride	<1.0	ug/L	1.0	3.6	20	U		11/11/2016 04:19	RLD	EPA 8260C
Chlorobenzene	<0.80	ug/L	0.80	3.0	20	U		11/11/2016 04:19	RLD	EPA 8260C
Chloroethane	<1.4	ug/L	1.4	4.6	20	U		11/11/2016 04:19	RLD	EPA 8260C
Chloroform	<0.60	ug/L	0.60	2.2	20	U		11/11/2016 04:19	RLD	EPA 8260C
Chloromethane	<0.80	ug/L	0.80	2.6	20	U		11/11/2016 04:19	RLD	EPA 8260C
cis-1,2-Dichloroethene	43	ug/L	1.4	4.6	20			11/11/2016 04:19	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.22	ug/L	0.22	0.76	20	U		11/11/2016 04:19	RLD	EPA 8260C
Dibromochloromethane	<0.60	ug/L	0.60	2.0	20	U		11/11/2016 04:19	RLD	EPA 8260C
Dibromomethane	<1.0	ug/L	1.0	3.4	20	U		11/11/2016 04:19	RLD	EPA 8260C
Dichlorodifluoromethane	<1.2	ug/L	1.2	3.8	20	U		11/11/2016 04:19	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 800073 Sample Description:MW-103D

DNR License/Well #: 4189/040

Sampled: 11/02/2016 1215

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Diisopropyl ether	<0.80	ug/L	0.80	2.8	20	U		11/11/2016 04:19	RLD	EPA 8260C
Ethylbenzene	<0.80	ug/L	0.80	3.0	20	U		11/11/2016 04:19	RLD	EPA 8260C
Hexachlorobutadiene	<1.0	ug/L	1.0	3.2	20	U		11/11/2016 04:19	RLD	EPA 8260C
Isopropylbenzene	<0.80	ug/L	0.80	2.4	20	U		11/11/2016 04:19	RLD	EPA 8260C
m & p-Xylene	<1.4	ug/L	1.4	4.6	20	U		11/11/2016 04:19	RLD	EPA 8260C
Methyl tert-butyl ether	<0.80	ug/L	0.80	2.4	20	U		11/11/2016 04:19	RLD	EPA 8260C
Methylene chloride	<1.0	ug/L	1.0	3.2	20	U		11/11/2016 04:19	RLD	EPA 8260C
n-Butylbenzene	<0.60	ug/L	0.60	2.2	20	U		11/11/2016 04:19	RLD	EPA 8260C
n-Propylbenzene	<0.80	ug/L	0.80	2.6	20	U		11/11/2016 04:19	RLD	EPA 8260C
Naphthalene	<0.60	ug/L	0.60	2.0	20	U		11/11/2016 04:19	RLD	EPA 8260C
o-Xylene	<0.80	ug/L	0.80	2.8	20	U		11/11/2016 04:19	RLD	EPA 8260C
p-Isopropyltoluene	<0.80	ug/L	0.80	2.6	20	U		11/11/2016 04:19	RLD	EPA 8260C
sec-Butylbenzene	<1.0	ug/L	1.0	3.2	20	U		11/11/2016 04:19	RLD	EPA 8260C
Styrene	<0.60	ug/L	0.60	2.2	20	U		11/11/2016 04:19	RLD	EPA 8260C
tert-Butylbenzene	<0.80	ug/L	0.80	2.8	20	U		11/11/2016 04:19	RLD	EPA 8260C
Tetrachloroethene	<1.0	ug/L	1.0	3.6	20	U		11/11/2016 04:19	RLD	EPA 8260C
Tetrahydrofuran	8.2	ug/L	8.0	30	20	J B		11/11/2016 04:19	RLD	EPA 8260C
Toluene	<0.80	ug/L	0.80	2.6	20	U		11/11/2016 04:19	RLD	EPA 8260C
trans-1,2-Dichloroethene	0.95	ug/L	0.80	2.8	20	J		11/11/2016 04:19	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.38	ug/L	0.38	1.3	20	U		11/11/2016 04:19	RLD	EPA 8260C
Trichloroethene	360	ug/L	2.5	8.5	50			11/10/2016 17:25	AGK	EPA 8260C
Trichlorofluoromethane	<1.8	ug/L	1.8	2.8	20	U		11/11/2016 04:19	RLD	EPA 8260C
Vinyl acetate	<4.4	ug/L	4.4	15	20	U		11/11/2016 04:19	RLD	EPA 8260C
Vinyl chloride	<0.38	ug/L	0.38	1.3	20	U		11/11/2016 04:19	RLD	EPA 8260C
1,4-Dioxane	<140	ug/L	140	460	20	U		11/11/2016 04:09	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications
Kansas NELAP ID# E-10368
Kentucky ID# 0023
ISO/IEC 17025-2005 A2LA Cert # 3806.01
North Carolina ID# 674
Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID E871111, Expires Annually
Louisiana ID # 115843
Virginia ID# 7608
Illinois NELAP ID # 002413
Wisconsin (WOSB) ID# WI-5499-WBE
Maryland ID# 344

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase:
 Project #: 117-7413001.01
 Folder #: 123409
 Purchase Order #:
 Contract #: 2747

Page 1 of 2
 Arrival Temperature: 1.1
 Report Date: 11/30/2016
 Date Received: 11/03/2016
 Reprint Date: 11/30/2016

CT LAB#: 800074	Sample Description: MW-103D	DNR License/Well #: 4189/040	Sampled: 11/02/2016 1215
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Metals Results										
Dissolved Iron	<0.059	mg/L	0.059	0.20	1	U		11/08/2016 21:15	NAH	EPA 6010C
Dissolved Manganese	398	ug/L	2.2	7.3	1			11/08/2016 21:15	NAH	EPA 6010C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications
Kansas NELAP ID# E-10368
Kentucky ID# 0023
ISO/IEC 17025-2005 A2LA Cert # 3806.01
North Carolina ID# 674
Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID E8711111, Expires Annually
Louisiana ID # 115843
Virginia ID# 7608
Illinois NELAP ID # 002413
Wisconsin (WOSB) ID# WI-5499-WBE
Maryland ID# 344

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase:
 Project #: 117-7413001.01
 Folder #: 123409
 Purchase Order #:
 Contract #: 2747

Page 1 of 5
 Arrival Temperature: 1.1
 Report Date: 11/30/2016
 Date Received: 11/03/2016
 Reprint Date: 11/30/2016

CT LAB#: 800075	Sample Description: MW-103D DUP	DNR License/Well #: 4189/040	Sampled: 11/02/2016 1220
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results										
Alkalinity Total	460	mg/L	5.0	18	1			11/11/2016 10:44	SAW	EPA 310.2
Total Chloride	170	mg/L	1.4	4.8	2			11/04/2016 14:25	JJF	EPA 9056A
Total Sulfate	73	mg/L	2.0	6.4	2			11/04/2016 14:25	JJF	EPA 9056A
Total Organic Carbon	5.4	mg/L	0.50	1.7	1			11/07/2016 18:59	JJF	EPA 9060A
Metals Results										
Total Iron	0.133	mg/L	0.034	0.11	1		11/08/2016 15:00	11/09/2016 22:33	NAH	EPA 6010C
Total Manganese	388	ug/L	3.4	11	1		11/08/2016 15:00	11/09/2016 22:33	NAH	EPA 6010C
Organic Results										
Acetylene	<0.23	ug/L	0.23	0.77	1	U	11/10/2016 09:00	11/11/2016 12:46	agk	Mod RSK 175
Ethane	<0.40	ug/L	0.40	1.2	1	U	11/10/2016 09:00	11/11/2016 12:46	agk	Mod RSK 175
Ethene	<0.50	ug/L	0.50	1.8	1	U	11/10/2016 09:00	11/11/2016 12:46	agk	Mod RSK 175
Methane	7.8	ug/L	0.40	1.2	1		11/10/2016 09:00	11/11/2016 12:46	agk	Mod RSK 175
1,1,1,2-Tetrachloroethane	<0.80	ug/L	0.80	2.6	20	U		11/11/2016 04:48	RLD	EPA 8260C
1,1,1-Trichloroethane	38	ug/L	1.0	3.4	20			11/11/2016 04:48	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.34	ug/L	0.34	1.1	20	U		11/11/2016 04:48	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 800075 Sample Description:MW-103D DUP

DNR License/Well #: 4189/040

Sampled: 11/02/2016 1220

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,1,2-Trichloroethane	<1.0	ug/L	1.0	3.2	20	U		11/11/2016 04:48	RLD	EPA 8260C
1,1-Dichloroethane	5.6	ug/L	1.2	3.8	20			11/11/2016 04:48	RLD	EPA 8260C
1,1-Dichloroethene	1.6	ug/L	1.2	4.0	20	J		11/11/2016 04:48	RLD	EPA 8260C
1,1-Dichloropropene	<1.2	ug/L	1.2	3.8	20	U		11/11/2016 04:48	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.80	ug/L	0.80	2.6	20	U		11/11/2016 04:48	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.80	ug/L	0.80	2.8	20	U		11/11/2016 04:48	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.80	ug/L	0.80	2.4	20	U		11/11/2016 04:48	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.80	ug/L	0.80	2.4	20	U		11/11/2016 04:48	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<1.8	ug/L	1.8	5.8	20	U		11/11/2016 04:48	RLD	EPA 8260C
1,2-Dibromoethane	<1.4	ug/L	1.4	4.6	20	U		11/11/2016 04:48	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.80	ug/L	0.80	2.6	20	U		11/11/2016 04:48	RLD	EPA 8260C
1,2-Dichloroethane	<1.0	ug/L	1.0	3.6	20	U		11/11/2016 04:48	RLD	EPA 8260C
1,2-Dichloropropane	<1.4	ug/L	1.4	4.6	20	U		11/11/2016 04:48	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<1.0	ug/L	1.0	3.2	20	U		11/11/2016 04:48	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.80	ug/L	0.80	2.6	20	U		11/11/2016 04:48	RLD	EPA 8260C
1,3-Dichloropropane	<0.80	ug/L	0.80	2.6	20	U		11/11/2016 04:48	RLD	EPA 8260C
1,4-Dichlorobenzene	<0.80	ug/L	0.80	2.6	20	U		11/11/2016 04:48	RLD	EPA 8260C
2,2-Dichloropropane	<1.0	ug/L	1.0	3.0	20	U		11/11/2016 04:48	RLD	EPA 8260C
2-Butanone	<10	ug/L	10	30	20	U		11/11/2016 04:48	RLD	EPA 8260C
2-Chlorotoluene	<0.60	ug/L	0.60	2.2	20	U		11/11/2016 04:48	RLD	EPA 8260C
2-Hexanone	<4.8	ug/L	4.8	16	20	U		11/11/2016 04:48	RLD	EPA 8260C
4-Chlorotoluene	<0.80	ug/L	0.80	2.4	20	U		11/11/2016 04:48	RLD	EPA 8260C
4-Methyl-2-pentanone	<4.8	ug/L	4.8	16	20	U		11/11/2016 04:48	RLD	EPA 8260C
Acetone	<6.0	ug/L	6.0	20	20	U		11/11/2016 04:48	RLD	EPA 8260C
Benzene	<0.36	ug/L	0.36	1.2	20	U		11/11/2016 04:48	RLD	EPA 8260C
Bromobenzene	<0.80	ug/L	0.80	3.0	20	U		11/11/2016 04:48	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 800075 Sample Description:MW-103D DUP

DNR License/Well #: 4189/040

Sampled: 11/02/2016 1220

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Bromochloromethane	<0.60	ug/L	0.60	2.0	20	U		11/11/2016 04:48	RLD	EPA 8260C
Bromodichloromethane	<0.32	ug/L	0.32	1.1	20	U		11/11/2016 04:48	RLD	EPA 8260C
Bromoform	<0.80	ug/L	0.80	2.4	20	U		11/11/2016 04:48	RLD	EPA 8260C
Bromomethane	<1.6	ug/L	1.6	5.6	20	U Z		11/11/2016 04:48	RLD	EPA 8260C
Carbon disulfide	<1.4	ug/L	1.4	5.0	20	U		11/11/2016 04:48	RLD	EPA 8260C
Carbon tetrachloride	<1.0	ug/L	1.0	3.6	20	U		11/11/2016 04:48	RLD	EPA 8260C
Chlorobenzene	<0.80	ug/L	0.80	3.0	20	U		11/11/2016 04:48	RLD	EPA 8260C
Chloroethane	<1.4	ug/L	1.4	4.6	20	U		11/11/2016 04:48	RLD	EPA 8260C
Chloroform	<0.60	ug/L	0.60	2.2	20	U		11/11/2016 04:48	RLD	EPA 8260C
Chloromethane	<0.80	ug/L	0.80	2.6	20	U		11/11/2016 04:48	RLD	EPA 8260C
cis-1,2-Dichloroethene	43	ug/L	1.4	4.6	20			11/11/2016 04:48	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.22	ug/L	0.22	0.76	20	U		11/11/2016 04:48	RLD	EPA 8260C
Dibromochloromethane	<0.60	ug/L	0.60	2.0	20	U		11/11/2016 04:48	RLD	EPA 8260C
Dibromomethane	<1.0	ug/L	1.0	3.4	20	U		11/11/2016 04:48	RLD	EPA 8260C
Dichlorodifluoromethane	<1.2	ug/L	1.2	3.8	20	U		11/11/2016 04:48	RLD	EPA 8260C
Diisopropyl ether	<0.80	ug/L	0.80	2.8	20	U		11/11/2016 04:48	RLD	EPA 8260C
Ethylbenzene	<0.80	ug/L	0.80	3.0	20	U		11/11/2016 04:48	RLD	EPA 8260C
Hexachlorobutadiene	<1.0	ug/L	1.0	3.2	20	U		11/11/2016 04:48	RLD	EPA 8260C
Isopropylbenzene	<0.80	ug/L	0.80	2.4	20	U		11/11/2016 04:48	RLD	EPA 8260C
m & p-Xylene	<1.4	ug/L	1.4	4.6	20	U		11/11/2016 04:48	RLD	EPA 8260C
Methyl tert-butyl ether	<0.80	ug/L	0.80	2.4	20	U		11/11/2016 04:48	RLD	EPA 8260C
Methylene chloride	<1.0	ug/L	1.0	3.2	20	U		11/11/2016 04:48	RLD	EPA 8260C
n-Butylbenzene	<0.60	ug/L	0.60	2.2	20	U		11/11/2016 04:48	RLD	EPA 8260C
n-Propylbenzene	<0.80	ug/L	0.80	2.6	20	U		11/11/2016 04:48	RLD	EPA 8260C
Naphthalene	<0.60	ug/L	0.60	2.0	20	U		11/11/2016 04:48	RLD	EPA 8260C
o-Xylene	<0.80	ug/L	0.80	2.8	20	U		11/11/2016 04:48	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 800075 Sample Description: MW-103D DUP

DNR License/Well #: 4189/040

Sampled: 11/02/2016 1220

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
p-Isopropyltoluene	<0.80	ug/L	0.80	2.6	20	U		11/11/2016 04:48	RLD	EPA 8260C
sec-Butylbenzene	<1.0	ug/L	1.0	3.2	20	U		11/11/2016 04:48	RLD	EPA 8260C
Styrene	<0.60	ug/L	0.60	2.2	20	U		11/11/2016 04:48	RLD	EPA 8260C
tert-Butylbenzene	<0.80	ug/L	0.80	2.8	20	U		11/11/2016 04:48	RLD	EPA 8260C
Tetrachloroethene	<1.0	ug/L	1.0	3.6	20	U		11/11/2016 04:48	RLD	EPA 8260C
Tetrahydrofuran	<8.0	ug/L	8.0	30	20	U		11/11/2016 04:48	RLD	EPA 8260C
Toluene	<0.80	ug/L	0.80	2.6	20	U		11/11/2016 04:48	RLD	EPA 8260C
trans-1,2-Dichloroethene	<0.80	ug/L	0.80	2.8	20	U		11/11/2016 04:48	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.38	ug/L	0.38	1.3	20	U		11/11/2016 04:48	RLD	EPA 8260C
Trichloroethene	360	ug/L	2.5	8.5	50			11/10/2016 17:54	AGK	EPA 8260C
Trichlorofluoromethane	<1.8	ug/L	1.8	2.8	20	U		11/11/2016 04:48	RLD	EPA 8260C
Vinyl acetate	<4.4	ug/L	4.4	15	20	U		11/11/2016 04:48	RLD	EPA 8260C
Vinyl chloride	<0.38	ug/L	0.38	1.3	20	U		11/11/2016 04:48	RLD	EPA 8260C
1,4-Dioxane	<140	ug/L	140	460	20	U		11/11/2016 04:48	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications
Kansas NELAP ID# E-10368
Kentucky ID# 0023
ISO/IEC 17025-2005 A2LA Cert # 3806.01
North Carolina ID# 674
Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID E871111, Expires Annually
Louisiana ID # 115843
Virginia ID# 7608
Illinois NELAP ID # 002413
Wisconsin (WOSB) ID# WI-5499-WBE
Maryland ID# 344

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase:
 Project #: 117-7413001.01
 Folder #: 123409
 Purchase Order #:
 Contract #: 2747

Page 1 of 2
 Arrival Temperature: 1.1
 Report Date: 11/30/2016
 Date Received: 11/03/2016
 Reprint Date: 11/30/2016

CT LAB#: 800076	Sample Description: MW-103D DUP	DNR License/Well #: 4189/040	Sampled: 11/02/2016 1220
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Metals Results										
Dissolved Iron	<0.059	mg/L	0.059	0.20	1	U	11/08/2016 21:22	11/08/2016 21:22	NAH	EPA 6010C
Dissolved Manganese	389	ug/L	2.2	7.3	1		11/08/2016 21:22	11/08/2016 21:22	NAH	EPA 6010C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

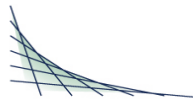
Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications
Kansas NELAP ID# E-10368
Kentucky ID# 0023
ISO/IEC 17025-2005 A2LA Cert # 3806.01
North Carolina ID# 674
Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID E8711111, Expires Annually
Louisiana ID # 115843
Virginia ID# 7608
Illinois NELAP ID # 002413
Wisconsin (WOSB) ID# WI-5499-WBE
Maryland ID# 344



ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase:
 Project #: 117-7413001.01
 Folder #: 123409
 Purchase Order #:
 Contract #: 2747

Page 1 of 5
 Arrival Temperature: 1.1
 Report Date: 11/30/2016
 Date Received: 11/03/2016
 Reprint Date: 11/30/2016

CT LAB#: 800077	Sample Description: OW-6	DNR License/Well #: 4189/049	Sampled: 11/02/2016 1320
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Field Results										
Dissolved Oxygen (Field)	0.44	mg/L	N/A	N/A	1			11/02/2016 00:00	BMS	
Depth to Groundwater (Field)	5.32	Feet	N/A	N/A	1			11/02/2016 00:00	BMS	
OX/REDOX (Field)	-166	MV	N/A	N/A	1			11/02/2016 00:00	BMS	
Color (Field)	CLEAR		N/A	N/A	1			11/02/2016 00:00	BMS	FIELD
Conductivity (Field)	951	umhos/cm	N/A	N/A	1			11/02/2016 00:00	BMS	FIELD
Groundwater Elevation (Field)	846.67	Feet MSL	N/A	N/A	1			11/02/2016 00:00	BMS	FIELD
pH (Field)	7.48	S.U.	N/A	N/A	1			11/02/2016 00:00	BMS	FIELD
Temperature (Field)	9.64	Deg. C	N/A	N/A	1			11/02/2016 00:00	BMS	FIELD
Turbidity (Field)	CLEAR		N/A	N/A	1			11/02/2016 00:00	BMS	FIELD
Inorganic Results										
Alkalinity Total	350	mg/L	5.0	18	1			11/11/2016 10:45	SAW	EPA 310.2
Total Chloride	150	mg/L	1.4	4.8	2			11/04/2016 14:45	JJF	EPA 9056A
Total Sulfate	26	mg/L	2.0	6.4	2			11/04/2016 14:45	JJF	EPA 9056A
Total Organic Carbon	0.89	mg/L	0.50	1.7	1	J		11/07/2016 19:12	JJF	EPA 9060A
Metals Results										

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

The depth to groundwater and groundwater elevation results listed above are from a previous sampling round and therefore incorrect.

CT LAB#: 800077 Sample Description:OW-6

DNR License/Well #: 4189/049

Sampled: 11/02/2016 1320

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Total Iron	4.00	mg/L	0.034	0.11	1		11/08/2016 15:00	11/09/2016 22:40	NAH	EPA 6010C
Total Manganese	76.4	ug/L	3.4	11	1		11/08/2016 15:00	11/09/2016 22:40	NAH	EPA 6010C
Organic Results										
Acetylene	<0.23	ug/L	0.23	0.77	1	U	11/10/2016 09:00	11/11/2016 12:56	agk	Mod RSK 175
Ethane	0.53	ug/L	0.40	1.2	1	J	11/10/2016 09:00	11/11/2016 12:56	agk	Mod RSK 175
Ethene	<0.50	ug/L	0.50	1.8	1	U	11/10/2016 09:00	11/11/2016 12:56	agk	Mod RSK 175
Methane	65	ug/L	20	60	50		11/10/2016 09:00	11/11/2016 13:05	AGK	Mod RSK 175
1,1,1,2-Tetrachloroethane	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 10:38	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.050	ug/L	0.050	0.17	1	U		11/10/2016 10:38	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.017	ug/L	0.017	0.057	1	U		11/10/2016 10:38	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.050	ug/L	0.050	0.16	1	U		11/10/2016 10:38	RLD	EPA 8260C
1,1-Dichloroethane	<0.060	ug/L	0.060	0.19	1	U		11/10/2016 10:38	RLD	EPA 8260C
1,1-Dichloroethene	<0.060	ug/L	0.060	0.20	1	U		11/10/2016 10:38	RLD	EPA 8260C
1,1-Dichloropropene	<0.060	ug/L	0.060	0.19	1	U		11/10/2016 10:38	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 10:38	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.040	ug/L	0.040	0.14	1	U		11/10/2016 10:38	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.040	ug/L	0.040	0.12	1	U		11/10/2016 10:38	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.040	ug/L	0.040	0.12	1	U		11/10/2016 10:38	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.090	ug/L	0.090	0.29	1	U		11/10/2016 10:38	RLD	EPA 8260C
1,2-Dibromoethane	<0.070	ug/L	0.070	0.23	1	U		11/10/2016 10:38	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 10:38	RLD	EPA 8260C
1,2-Dichloroethane	<0.050	ug/L	0.050	0.18	1	U		11/10/2016 10:38	RLD	EPA 8260C
1,2-Dichloropropane	<0.070	ug/L	0.070	0.23	1	U		11/10/2016 10:38	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<0.050	ug/L	0.050	0.16	1	U		11/10/2016 10:38	RLD	EPA 8260C
1,3-Dichlorobenzene	0.050	ug/L	0.040	0.13	1	J		11/10/2016 10:38	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

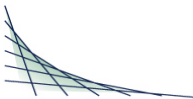
CT LAB#: 800077 Sample Description:OW-6

DNR License/Well #: 4189/049

Sampled: 11/02/2016 1320

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,3-Dichloropropane	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 10:38	RLD	EPA 8260C
1,4-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 10:38	RLD	EPA 8260C
2,2-Dichloropropane	<0.050	ug/L	0.050	0.15	1	U		11/10/2016 10:38	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.5	1	U		11/10/2016 10:38	RLD	EPA 8260C
2-Chlorotoluene	<0.030	ug/L	0.030	0.11	1	U		11/10/2016 10:38	RLD	EPA 8260C
2-Hexanone	<0.24	ug/L	0.24	0.81	1	U		11/10/2016 10:38	RLD	EPA 8260C
4-Chlorotoluene	<0.040	ug/L	0.040	0.12	1	U		11/10/2016 10:38	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.24	ug/L	0.24	0.82	1	U		11/10/2016 10:38	RLD	EPA 8260C
Acetone	<0.30	ug/L	0.30	1.0	1	U		11/10/2016 10:38	RLD	EPA 8260C
Benzene	0.021	ug/L	0.018	0.059	1	J		11/10/2016 10:38	RLD	EPA 8260C
Bromobenzene	<0.040	ug/L	0.040	0.15	1	U		11/10/2016 10:38	RLD	EPA 8260C
Bromochloromethane	<0.030	ug/L	0.030	0.099	1	U		11/10/2016 10:38	RLD	EPA 8260C
Bromodichloromethane	<0.016	ug/L	0.016	0.054	1	U		11/10/2016 10:38	RLD	EPA 8260C
Bromoform	<0.040	ug/L	0.040	0.12	1	U Z		11/10/2016 10:38	RLD	EPA 8260C
Bromomethane	<0.080	ug/L	0.080	0.28	1	U		11/10/2016 10:38	RLD	EPA 8260C
Carbon disulfide	<0.070	ug/L	0.070	0.25	1	U		11/10/2016 10:38	RLD	EPA 8260C
Carbon tetrachloride	<0.050	ug/L	0.050	0.18	1	U		11/10/2016 10:38	RLD	EPA 8260C
Chlorobenzene	<0.040	ug/L	0.040	0.15	1	U		11/10/2016 10:38	RLD	EPA 8260C
Chloroethane	<0.070	ug/L	0.070	0.23	1	U		11/10/2016 10:38	RLD	EPA 8260C
Chloroform	<0.030	ug/L	0.030	0.11	1	U		11/10/2016 10:38	RLD	EPA 8260C
Chloromethane	0.085	ug/L	0.040	0.13	1	J		11/10/2016 10:38	RLD	EPA 8260C
cis-1,2-Dichloroethene	0.078	ug/L	0.070	0.23	1	J		11/10/2016 10:38	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.011	ug/L	0.011	0.038	1	U		11/10/2016 10:38	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1	U		11/10/2016 10:38	RLD	EPA 8260C
Dibromomethane	<0.050	ug/L	0.050	0.17	1	U		11/10/2016 10:38	RLD	EPA 8260C
Dichlorodifluoromethane	<0.060	ug/L	0.060	0.19	1	U		11/10/2016 10:38	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis



CT LAB#: 800077 Sample Description:OW-6

DNR License/Well #: 4189/049

Sampled: 11/02/2016 1320

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Diisopropyl ether	<0.040	ug/L	0.040	0.14	1	U	11/10/2016 10:38	11/10/2016 10:38	RLD	EPA 8260C
Ethylbenzene	<0.040	ug/L	0.040	0.15	1	U	11/10/2016 10:38	11/10/2016 10:38	RLD	EPA 8260C
Hexachlorobutadiene	<0.050	ug/L	0.050	0.16	1	U	11/10/2016 10:38	11/10/2016 10:38	RLD	EPA 8260C
Isopropylbenzene	<0.040	ug/L	0.040	0.12	1	U	11/10/2016 10:38	11/10/2016 10:38	RLD	EPA 8260C
m & p-Xylene	<0.070	ug/L	0.070	0.23	1	U	11/10/2016 10:38	11/10/2016 10:38	RLD	EPA 8260C
Methyl tert-butyl ether	<0.040	ug/L	0.040	0.12	1	U	11/10/2016 10:38	11/10/2016 10:38	RLD	EPA 8260C
Methylene chloride	<0.050	ug/L	0.050	0.16	1	U	11/10/2016 10:38	11/10/2016 10:38	RLD	EPA 8260C
n-Butylbenzene	<0.030	ug/L	0.030	0.11	1	U	11/10/2016 10:38	11/10/2016 10:38	RLD	EPA 8260C
n-Propylbenzene	<0.040	ug/L	0.040	0.13	1	U	11/10/2016 10:38	11/10/2016 10:38	RLD	EPA 8260C
Naphthalene	<0.030	ug/L	0.030	0.10	1	U	11/10/2016 10:38	11/10/2016 10:38	RLD	EPA 8260C
o-Xylene	<0.040	ug/L	0.040	0.14	1	U	11/10/2016 10:38	11/10/2016 10:38	RLD	EPA 8260C
p-Isopropyltoluene	<0.040	ug/L	0.040	0.13	1	U	11/10/2016 10:38	11/10/2016 10:38	RLD	EPA 8260C
sec-Butylbenzene	<0.050	ug/L	0.050	0.16	1	U	11/10/2016 10:38	11/10/2016 10:38	RLD	EPA 8260C
Styrene	<0.030	ug/L	0.030	0.11	1	U	11/10/2016 10:38	11/10/2016 10:38	RLD	EPA 8260C
tert-Butylbenzene	<0.040	ug/L	0.040	0.14	1	U	11/10/2016 10:38	11/10/2016 10:38	RLD	EPA 8260C
Tetrachloroethene	<0.050	ug/L	0.050	0.18	1	U	11/10/2016 10:38	11/10/2016 10:38	RLD	EPA 8260C
Tetrahydrofuran	<0.40	ug/L	0.40	1.5	1	U	11/10/2016 10:38	11/10/2016 10:38	RLD	EPA 8260C
Toluene	<0.040	ug/L	0.040	0.13	1	U	11/10/2016 10:38	11/10/2016 10:38	RLD	EPA 8260C
trans-1,2-Dichloroethene	<0.040	ug/L	0.040	0.14	1	U	11/10/2016 10:38	11/10/2016 10:38	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.019	ug/L	0.019	0.063	1	U	11/10/2016 10:38	11/10/2016 10:38	RLD	EPA 8260C
Trichloroethene	<0.050	ug/L	0.050	0.17	1	U	11/10/2016 10:38	11/10/2016 10:38	RLD	EPA 8260C
Trichlorofluoromethane	<0.090	ug/L	0.090	0.14	1	U	11/10/2016 10:38	11/10/2016 10:38	RLD	EPA 8260C
Vinyl acetate	<0.22	ug/L	0.22	0.73	1	U	11/10/2016 10:38	11/10/2016 10:38	RLD	EPA 8260C
Vinyl chloride	<0.019	ug/L	0.019	0.064	1	U	11/10/2016 10:38	11/10/2016 10:38	RLD	EPA 8260C
1,4-Dioxane	<7.0	ug/L	7.0	23	1	U	11/10/2016 10:38	11/10/2016 10:38	RLD	EPA 8260C

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Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

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Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications
Kansas NELAP ID# E-10368
Kentucky ID# 0023
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North Carolina ID# 674
Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID E8711111, Expires Annually
Louisiana ID # 115843
Virginia ID# 7608
Illinois NELAP ID # 002413
Wisconsin (WOSB) ID# WI-5499-WBE
Maryland ID# 344

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase:
 Project #: 117-7413001.01
 Folder #: 123409
 Purchase Order #:
 Contract #: 2747

Page 1 of 2
 Arrival Temperature: 1.1
 Report Date: 11/30/2016
 Date Received: 11/03/2016
 Reprint Date: 11/30/2016

CT LAB#: 800078	Sample Description: OW-6	DNR License/Well #: 4189/049	Sampled: 11/02/2016 1320
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Metals Results										
Dissolved Iron	3.97	mg/L	0.059	0.20	1			11/08/2016 21:30	NAH	EPA 6010C
Dissolved Manganese	78.6	ug/L	2.2	7.3	1			11/08/2016 21:30	NAH	EPA 6010C

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Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
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Louisiana ID # 115843
Virginia ID# 7608
Illinois NELAP ID # 002413
Wisconsin (WOSB) ID# WI-5499-WBE
Maryland ID# 344

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase:
 Project #: 117-7413001.01
 Folder #: 123409
 Purchase Order #:
 Contract #: 2747

Page 1 of 5
 Arrival Temperature: 1.1
 Report Date: 11/30/2016
 Date Received: 11/03/2016
 Reprint Date: 11/30/2016

CT LAB#: 800079	Sample Description: MW-2D	DNR License/Well #: 4189/004	Sampled: 11/02/2016 1410
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Field Results										
Dissolved Oxygen (Field)	0.33	mg/L	N/A	N/A	1			11/02/2016 00:00	BMS	
Depth to Groundwater (Field)	5.03	Feet	N/A	N/A	1			11/02/2016 00:00	BMS	
OX/REDOX (Field)	-90	MV	N/A	N/A	1			11/02/2016 00:00	BMS	
Color (Field)	CLEAR		N/A	N/A	1			11/02/2016 00:00	BMS	FIELD
Conductivity (Field)	1140	umhos/cm	N/A	N/A	1			11/02/2016 00:00	BMS	FIELD
Groundwater Elevation (Field)	847.33	Feet MSL	N/A	N/A	1			11/02/2016 00:00	BMS	FIELD
pH (Field)	7.22	S.U.	N/A	N/A	1			11/02/2016 00:00	BMS	FIELD
Temperature (Field)	6.77	Deg. C	N/A	N/A	1			11/02/2016 00:00	BMS	FIELD
Turbidity (Field)	CLEAR		N/A	N/A	1			11/02/2016 00:00	BMS	FIELD
Inorganic Results										
Alkalinity Total	390	mg/L	5.0	18	1			11/11/2016 10:46	SAW	EPA 310.2
Total Chloride	180	mg/L	2.1	7.2	3			11/04/2016 15:06	JJF	EPA 9056A
Total Sulfate	39	mg/L	3.0	9.6	3			11/04/2016 15:06	JJF	EPA 9056A
Total Organic Carbon	1.7	mg/L	0.50	1.7	1			11/07/2016 19:23	JJF	EPA 9060A
Metals Results										

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

The depth to groundwater and groundwater elevation results listed above are from a previous sampling round and therefore incorrect.

CT LAB#: 800079 Sample Description:MW-2D

DNR License/Well #: 4189/004

Sampled: 11/02/2016 1410

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Total Iron	1.69	mg/L	0.034	0.11	1		11/08/2016 15:00	11/09/2016 23:07	NAH	EPA 6010C
Total Manganese	21.9	ug/L	3.4	11	1		11/08/2016 15:00	11/09/2016 23:07	NAH	EPA 6010C
Organic Results										
Acetylene	<0.23	ug/L	0.23	0.77	1	U	11/10/2016 09:00	11/11/2016 13:18	agk	Mod RSK 175
Ethane	<0.40	ug/L	0.40	1.2	1	U	11/10/2016 09:00	11/11/2016 13:18	agk	Mod RSK 175
Ethene	<0.50	ug/L	0.50	1.8	1	U	11/10/2016 09:00	11/11/2016 13:18	agk	Mod RSK 175
Methane	52	ug/L	8.0	24	20		11/10/2016 09:00	11/11/2016 13:29	AGK	Mod RSK 175
1,1,1,2-Tetrachloroethane	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 11:07	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.050	ug/L	0.050	0.17	1	U		11/10/2016 11:07	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.017	ug/L	0.017	0.057	1	U		11/10/2016 11:07	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.050	ug/L	0.050	0.16	1	U		11/10/2016 11:07	RLD	EPA 8260C
1,1-Dichloroethane	0.18	ug/L	0.060	0.19	1	J		11/10/2016 11:07	RLD	EPA 8260C
1,1-Dichloroethene	<0.060	ug/L	0.060	0.20	1	U		11/10/2016 11:07	RLD	EPA 8260C
1,1-Dichloropropene	<0.060	ug/L	0.060	0.19	1	U		11/10/2016 11:07	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 11:07	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.040	ug/L	0.040	0.14	1	U		11/10/2016 11:07	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.040	ug/L	0.040	0.12	1	U		11/10/2016 11:07	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.040	ug/L	0.040	0.12	1	U		11/10/2016 11:07	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.090	ug/L	0.090	0.29	1	U		11/10/2016 11:07	RLD	EPA 8260C
1,2-Dibromoethane	<0.070	ug/L	0.070	0.23	1	U		11/10/2016 11:07	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 11:07	RLD	EPA 8260C
1,2-Dichloroethane	<0.050	ug/L	0.050	0.18	1	U		11/10/2016 11:07	RLD	EPA 8260C
1,2-Dichloropropane	<0.070	ug/L	0.070	0.23	1	U		11/10/2016 11:07	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<0.050	ug/L	0.050	0.16	1	U		11/10/2016 11:07	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 11:07	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 800079 Sample Description:MW-2D

DNR License/Well #: 4189/004

Sampled: 11/02/2016 1410

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,3-Dichloropropane	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 11:07	RLD	EPA 8260C
1,4-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 11:07	RLD	EPA 8260C
2,2-Dichloropropane	<0.050	ug/L	0.050	0.15	1	U		11/10/2016 11:07	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.5	1	U		11/10/2016 11:07	RLD	EPA 8260C
2-Chlorotoluene	<0.030	ug/L	0.030	0.11	1	U		11/10/2016 11:07	RLD	EPA 8260C
2-Hexanone	<0.24	ug/L	0.24	0.81	1	U		11/10/2016 11:07	RLD	EPA 8260C
4-Chlorotoluene	<0.040	ug/L	0.040	0.12	1	U		11/10/2016 11:07	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.24	ug/L	0.24	0.82	1	U		11/10/2016 11:07	RLD	EPA 8260C
Acetone	<0.30	ug/L	0.30	1.0	1	U		11/10/2016 11:07	RLD	EPA 8260C
Benzene	<0.018	ug/L	0.018	0.059	1	U		11/10/2016 11:07	RLD	EPA 8260C
Bromobenzene	<0.040	ug/L	0.040	0.15	1	U		11/10/2016 11:07	RLD	EPA 8260C
Bromochloromethane	<0.030	ug/L	0.030	0.099	1	U		11/10/2016 11:07	RLD	EPA 8260C
Bromodichloromethane	<0.016	ug/L	0.016	0.054	1	U		11/10/2016 11:07	RLD	EPA 8260C
Bromoform	<0.040	ug/L	0.040	0.12	1	U Z		11/10/2016 11:07	RLD	EPA 8260C
Bromomethane	<0.080	ug/L	0.080	0.28	1	U		11/10/2016 11:07	RLD	EPA 8260C
Carbon disulfide	0.073	ug/L	0.070	0.25	1	J		11/10/2016 11:07	RLD	EPA 8260C
Carbon tetrachloride	<0.050	ug/L	0.050	0.18	1	U		11/10/2016 11:07	RLD	EPA 8260C
Chlorobenzene	<0.040	ug/L	0.040	0.15	1	U		11/10/2016 11:07	RLD	EPA 8260C
Chloroethane	<0.070	ug/L	0.070	0.23	1	U		11/10/2016 11:07	RLD	EPA 8260C
Chloroform	<0.030	ug/L	0.030	0.11	1	U		11/10/2016 11:07	RLD	EPA 8260C
Chloromethane	0.070	ug/L	0.040	0.13	1	J		11/10/2016 11:07	RLD	EPA 8260C
cis-1,2-Dichloroethene	0.35	ug/L	0.070	0.23	1			11/10/2016 11:07	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.011	ug/L	0.011	0.038	1	U		11/10/2016 11:07	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1	U		11/10/2016 11:07	RLD	EPA 8260C
Dibromomethane	<0.050	ug/L	0.050	0.17	1	U		11/10/2016 11:07	RLD	EPA 8260C
Dichlorodifluoromethane	<0.060	ug/L	0.060	0.19	1	U		11/10/2016 11:07	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 800079 Sample Description:MW-2D

DNR License/Well #: 4189/004

Sampled: 11/02/2016 1410

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Diisopropyl ether	<0.040	ug/L	0.040	0.14	1	U	11/10/2016 11:07	11:07	RLD	EPA 8260C
Ethylbenzene	<0.040	ug/L	0.040	0.15	1	U	11/10/2016 11:07	11:07	RLD	EPA 8260C
Hexachlorobutadiene	<0.050	ug/L	0.050	0.16	1	U	11/10/2016 11:07	11:07	RLD	EPA 8260C
Isopropylbenzene	<0.040	ug/L	0.040	0.12	1	U	11/10/2016 11:07	11:07	RLD	EPA 8260C
m & p-Xylene	<0.070	ug/L	0.070	0.23	1	U	11/10/2016 11:07	11:07	RLD	EPA 8260C
Methyl tert-butyl ether	0.082	ug/L	0.040	0.12	1	J	11/10/2016 11:07	11:07	RLD	EPA 8260C
Methylene chloride	<0.050	ug/L	0.050	0.16	1	U	11/10/2016 11:07	11:07	RLD	EPA 8260C
n-Butylbenzene	<0.030	ug/L	0.030	0.11	1	U	11/10/2016 11:07	11:07	RLD	EPA 8260C
n-Propylbenzene	<0.040	ug/L	0.040	0.13	1	U	11/10/2016 11:07	11:07	RLD	EPA 8260C
Naphthalene	<0.030	ug/L	0.030	0.10	1	U	11/10/2016 11:07	11:07	RLD	EPA 8260C
o-Xylene	<0.040	ug/L	0.040	0.14	1	U	11/10/2016 11:07	11:07	RLD	EPA 8260C
p-Isopropyltoluene	<0.040	ug/L	0.040	0.13	1	U	11/10/2016 11:07	11:07	RLD	EPA 8260C
sec-Butylbenzene	<0.050	ug/L	0.050	0.16	1	U	11/10/2016 11:07	11:07	RLD	EPA 8260C
Styrene	<0.030	ug/L	0.030	0.11	1	U	11/10/2016 11:07	11:07	RLD	EPA 8260C
tert-Butylbenzene	<0.040	ug/L	0.040	0.14	1	U	11/10/2016 11:07	11:07	RLD	EPA 8260C
Tetrachloroethene	<0.050	ug/L	0.050	0.18	1	U	11/10/2016 11:07	11:07	RLD	EPA 8260C
Tetrahydrofuran	0.70	ug/L	0.40	1.5	1	J B	11/10/2016 11:07	11:07	RLD	EPA 8260C
Toluene	<0.040	ug/L	0.040	0.13	1	U	11/10/2016 11:07	11:07	RLD	EPA 8260C
trans-1,2-Dichloroethene	0.072	ug/L	0.040	0.14	1	J	11/10/2016 11:07	11:07	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.019	ug/L	0.019	0.063	1	U	11/10/2016 11:07	11:07	RLD	EPA 8260C
Trichloroethene	<0.050	ug/L	0.050	0.17	1	U	11/10/2016 11:07	11:07	RLD	EPA 8260C
Trichlorofluoromethane	<0.090	ug/L	0.090	0.14	1	U	11/10/2016 11:07	11:07	RLD	EPA 8260C
Vinyl acetate	<0.22	ug/L	0.22	0.73	1	U	11/10/2016 11:07	11:07	RLD	EPA 8260C
Vinyl chloride	0.052	ug/L	0.019	0.064	1	J	11/10/2016 11:07	11:07	RLD	EPA 8260C
1,4-Dioxane	<7.0	ug/L	7.0	23	1	U	11/10/2016 11:07	11:07	RLD	EPA 8260C

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Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

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B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
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H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
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Virginia ID# 7608
Illinois NELAP ID # 002413
Wisconsin (WOSB) ID# WI-5499-WBE
Maryland ID# 344

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase:
 Project #: 117-7413001.01
 Folder #: 123409
 Purchase Order #:
 Contract #: 2747

Page 1 of 2
 Arrival Temperature: 1.1
 Report Date: 11/30/2016
 Date Received: 11/03/2016
 Reprint Date: 11/30/2016

CT LAB#: 800080	Sample Description: MW-2D	DNR License/Well #: 4189/004	Sampled: 11/02/2016 1410
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Metals Results										
Dissolved Iron	1.60	mg/L	0.059	0.20	1		11/08/2016 21:37	11/08/2016 21:37	NAH	EPA 6010C
Dissolved Manganese	21.4	ug/L	2.2	7.3	1		11/08/2016 21:37	11/08/2016 21:37	NAH	EPA 6010C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications
Kansas NELAP ID# E-10368
Kentucky ID# 0023
ISO/IEC 17025-2005 A2LA Cert # 3806.01
North Carolina ID# 674
Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID E8711111, Expires Annually
Louisiana ID # 115843
Virginia ID# 7608
Illinois NELAP ID # 002413
Wisconsin (WOSB) ID# WI-5499-WBE
Maryland ID# 344

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase:
 Project #: 117-7413001.01
 Folder #: 123409
 Purchase Order #:
 Contract #: 2747

Page 1 of 5
 Arrival Temperature: 1.1
 Report Date: 11/30/2016
 Date Received: 11/03/2016
 Reprint Date: 11/30/2016

CT LAB#: 800081	Sample Description: MW-3D	DNR License/Well #: 4189/006	Sampled: 11/02/2016 1520
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Field Results										
Dissolved Oxygen (Field)	1.31	mg/L	N/A	N/A	1			11/02/2016 00:00	BMS	
Depth to Groundwater (Field)	7.21	Feet	N/A	N/A	1			11/02/2016 00:00	BMS	
OX/REDOX (Field)	-62	MV	N/A	N/A	1			11/02/2016 00:00	BMS	
Color (Field)	CLEAR		N/A	N/A	1			11/02/2016 00:00	BMS	FIELD
Conductivity (Field)	1080	umhos/cm	N/A	N/A	1			11/02/2016 00:00	BMS	FIELD
Groundwater Elevation (Field)	846.30	Feet MSL	N/A	N/A	1			11/02/2016 00:00	BMS	FIELD
pH (Field)	7.22	S.U.	N/A	N/A	1			11/02/2016 00:00	BMS	FIELD
Temperature (Field)	6.14	Deg. C	N/A	N/A	1			11/02/2016 00:00	BMS	FIELD
Turbidity (Field)	CLEAR		N/A	N/A	1			11/02/2016 00:00	BMS	FIELD
Inorganic Results										
Alkalinity Total	380	mg/L	5.0	18	1			11/11/2016 10:50	SAW	EPA 310.2
Total Chloride	170	mg/L	2.1	7.2	3			11/04/2016 15:27	JJF	EPA 9056A
Total Sulfate	42	mg/L	3.0	9.6	3			11/04/2016 15:27	JJF	EPA 9056A
Total Organic Carbon	1.6	mg/L	0.50	1.7	1	J		11/07/2016 19:35	JJF	EPA 9060A
Metals Results										

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

The depth to groundwater and groundwater elevation results listed above are from a previous sampling round and therefore incorrect.

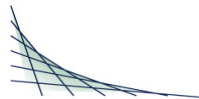
CT LAB#: 800081 Sample Description:MW-3D

DNR License/Well #: 4189/006

Sampled: 11/02/2016 1520

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Total Iron	0.490	mg/L	0.034	0.11	1		11/08/2016 15:00	11/09/2016 23:14	NAH	EPA 6010C
Total Manganese	50.4	ug/L	3.4	11	1		11/08/2016 15:00	11/09/2016 23:14	NAH	EPA 6010C
Organic Results										
Acetylene	<0.23	ug/L	0.23	0.77	1	U	11/10/2016 09:00	11/11/2016 13:42	agk	Mod RSK 175
Ethane	<0.40	ug/L	0.40	1.2	1	U	11/10/2016 09:00	11/11/2016 13:42	agk	Mod RSK 175
Ethene	<0.50	ug/L	0.50	1.8	1	U	11/10/2016 09:00	11/11/2016 13:42	agk	Mod RSK 175
Methane	18	ug/L	0.40	1.2	1		11/10/2016 09:00	11/11/2016 13:42	agk	Mod RSK 175
1,1,1,2-Tetrachloroethane	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 11:37	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.050	ug/L	0.050	0.17	1	U		11/10/2016 11:37	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.017	ug/L	0.017	0.057	1	U		11/10/2016 11:37	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.050	ug/L	0.050	0.16	1	U		11/10/2016 11:37	RLD	EPA 8260C
1,1-Dichloroethane	<0.060	ug/L	0.060	0.19	1	U		11/10/2016 11:37	RLD	EPA 8260C
1,1-Dichloroethene	<0.060	ug/L	0.060	0.20	1	U		11/10/2016 11:37	RLD	EPA 8260C
1,1-Dichloropropene	<0.060	ug/L	0.060	0.19	1	U		11/10/2016 11:37	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 11:37	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.040	ug/L	0.040	0.14	1	U		11/10/2016 11:37	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.040	ug/L	0.040	0.12	1	U		11/10/2016 11:37	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.040	ug/L	0.040	0.12	1	U		11/10/2016 11:37	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.090	ug/L	0.090	0.29	1	U		11/10/2016 11:37	RLD	EPA 8260C
1,2-Dibromoethane	<0.070	ug/L	0.070	0.23	1	U		11/10/2016 11:37	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 11:37	RLD	EPA 8260C
1,2-Dichloroethane	<0.050	ug/L	0.050	0.18	1	U		11/10/2016 11:37	RLD	EPA 8260C
1,2-Dichloropropane	<0.070	ug/L	0.070	0.23	1	U		11/10/2016 11:37	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<0.050	ug/L	0.050	0.16	1	U		11/10/2016 11:37	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 11:37	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis



CT LAB#: 800081 Sample Description:MW-3D

DNR License/Well #: 4189/006

Sampled: 11/02/2016 1520

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,3-Dichloropropane	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 11:37	RLD	EPA 8260C
1,4-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 11:37	RLD	EPA 8260C
2,2-Dichloropropane	<0.050	ug/L	0.050	0.15	1	U		11/10/2016 11:37	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.5	1	U		11/10/2016 11:37	RLD	EPA 8260C
2-Chlorotoluene	<0.030	ug/L	0.030	0.11	1	U		11/10/2016 11:37	RLD	EPA 8260C
2-Hexanone	<0.24	ug/L	0.24	0.81	1	U		11/10/2016 11:37	RLD	EPA 8260C
4-Chlorotoluene	<0.040	ug/L	0.040	0.12	1	U		11/10/2016 11:37	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.24	ug/L	0.24	0.82	1	U		11/10/2016 11:37	RLD	EPA 8260C
Acetone	<0.30	ug/L	0.30	1.0	1	U		11/10/2016 11:37	RLD	EPA 8260C
Benzene	<0.018	ug/L	0.018	0.059	1	U		11/10/2016 11:37	RLD	EPA 8260C
Bromobenzene	<0.040	ug/L	0.040	0.15	1	U		11/10/2016 11:37	RLD	EPA 8260C
Bromochloromethane	<0.030	ug/L	0.030	0.099	1	U		11/10/2016 11:37	RLD	EPA 8260C
Bromodichloromethane	<0.016	ug/L	0.016	0.054	1	U		11/10/2016 11:37	RLD	EPA 8260C
Bromoform	<0.040	ug/L	0.040	0.12	1	U Z		11/10/2016 11:37	RLD	EPA 8260C
Bromomethane	<0.080	ug/L	0.080	0.28	1	U		11/10/2016 11:37	RLD	EPA 8260C
Carbon disulfide	<0.070	ug/L	0.070	0.25	1	U		11/10/2016 11:37	RLD	EPA 8260C
Carbon tetrachloride	<0.050	ug/L	0.050	0.18	1	U		11/10/2016 11:37	RLD	EPA 8260C
Chlorobenzene	<0.040	ug/L	0.040	0.15	1	U		11/10/2016 11:37	RLD	EPA 8260C
Chloroethane	<0.070	ug/L	0.070	0.23	1	U		11/10/2016 11:37	RLD	EPA 8260C
Chloroform	<0.030	ug/L	0.030	0.11	1	U		11/10/2016 11:37	RLD	EPA 8260C
Chloromethane	0.048	ug/L	0.040	0.13	1	J		11/10/2016 11:37	RLD	EPA 8260C
cis-1,2-Dichloroethene	0.30	ug/L	0.070	0.23	1			11/10/2016 11:37	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.011	ug/L	0.011	0.038	1	U		11/10/2016 11:37	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1	U		11/10/2016 11:37	RLD	EPA 8260C
Dibromomethane	<0.050	ug/L	0.050	0.17	1	U		11/10/2016 11:37	RLD	EPA 8260C
Dichlorodifluoromethane	<0.060	ug/L	0.060	0.19	1	U		11/10/2016 11:37	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 800081 Sample Description:MW-3D

DNR License/Well #: 4189/006

Sampled: 11/02/2016 1520

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Diisopropyl ether	<0.040	ug/L	0.040	0.14	1	U	11/10/2016 11:37	11/10/2016 11:37	RLD	EPA 8260C
Ethylbenzene	<0.040	ug/L	0.040	0.15	1	U	11/10/2016 11:37	11/10/2016 11:37	RLD	EPA 8260C
Hexachlorobutadiene	<0.050	ug/L	0.050	0.16	1	U	11/10/2016 11:37	11/10/2016 11:37	RLD	EPA 8260C
Isopropylbenzene	<0.040	ug/L	0.040	0.12	1	U	11/10/2016 11:37	11/10/2016 11:37	RLD	EPA 8260C
m & p-Xylene	<0.070	ug/L	0.070	0.23	1	U	11/10/2016 11:37	11/10/2016 11:37	RLD	EPA 8260C
Methyl tert-butyl ether	0.28	ug/L	0.040	0.12	1		11/10/2016 11:37	11/10/2016 11:37	RLD	EPA 8260C
Methylene chloride	<0.050	ug/L	0.050	0.16	1	U	11/10/2016 11:37	11/10/2016 11:37	RLD	EPA 8260C
n-Butylbenzene	<0.030	ug/L	0.030	0.11	1	U	11/10/2016 11:37	11/10/2016 11:37	RLD	EPA 8260C
n-Propylbenzene	<0.040	ug/L	0.040	0.13	1	U	11/10/2016 11:37	11/10/2016 11:37	RLD	EPA 8260C
Naphthalene	<0.030	ug/L	0.030	0.10	1	U	11/10/2016 11:37	11/10/2016 11:37	RLD	EPA 8260C
o-Xylene	<0.040	ug/L	0.040	0.14	1	U	11/10/2016 11:37	11/10/2016 11:37	RLD	EPA 8260C
p-Isopropyltoluene	<0.040	ug/L	0.040	0.13	1	U	11/10/2016 11:37	11/10/2016 11:37	RLD	EPA 8260C
sec-Butylbenzene	<0.050	ug/L	0.050	0.16	1	U	11/10/2016 11:37	11/10/2016 11:37	RLD	EPA 8260C
Styrene	<0.030	ug/L	0.030	0.11	1	U	11/10/2016 11:37	11/10/2016 11:37	RLD	EPA 8260C
tert-Butylbenzene	<0.040	ug/L	0.040	0.14	1	U	11/10/2016 11:37	11/10/2016 11:37	RLD	EPA 8260C
Tetrachloroethene	<0.050	ug/L	0.050	0.18	1	U	11/10/2016 11:37	11/10/2016 11:37	RLD	EPA 8260C
Tetrahydrofuran	0.49	ug/L	0.40	1.5	1	J B	11/10/2016 11:37	11/10/2016 11:37	RLD	EPA 8260C
Toluene	<0.040	ug/L	0.040	0.13	1	U	11/10/2016 11:37	11/10/2016 11:37	RLD	EPA 8260C
trans-1,2-Dichloroethene	<0.040	ug/L	0.040	0.14	1	U	11/10/2016 11:37	11/10/2016 11:37	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.019	ug/L	0.019	0.063	1	U	11/10/2016 11:37	11/10/2016 11:37	RLD	EPA 8260C
Trichloroethene	<0.050	ug/L	0.050	0.17	1	U	11/10/2016 11:37	11/10/2016 11:37	RLD	EPA 8260C
Trichlorofluoromethane	<0.090	ug/L	0.090	0.14	1	U	11/10/2016 11:37	11/10/2016 11:37	RLD	EPA 8260C
Vinyl acetate	<0.22	ug/L	0.22	0.73	1	U	11/10/2016 11:37	11/10/2016 11:37	RLD	EPA 8260C
Vinyl chloride	<0.019	ug/L	0.019	0.064	1	U	11/10/2016 11:37	11/10/2016 11:37	RLD	EPA 8260C
1,4-Dioxane	<7.0	ug/L	7.0	23	1	U	11/10/2016 11:37	11/10/2016 11:37	RLD	EPA 8260C

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Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

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North Carolina ID# 674
Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID E8711111, Expires Annually
Louisiana ID # 115843
Virginia ID# 7608
Illinois NELAP ID # 002413
Wisconsin (WOSB) ID# WI-5499-WBE
Maryland ID# 344

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase:
 Project #: 117-7413001.01
 Folder #: 123409
 Purchase Order #:
 Contract #: 2747

Page 1 of 2
 Arrival Temperature: 1.1
 Report Date: 11/30/2016
 Date Received: 11/03/2016
 Reprint Date: 11/30/2016

CT LAB#: 800082	Sample Description: MW-3D	DNR License/Well #: 4189/006	Sampled: 11/02/2016 1520
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Metals Results										
Dissolved Iron	0.326	mg/L	0.059	0.20	1		11/08/2016 21:45	11/08/2016 21:45	NAH	EPA 6010C
Dissolved Manganese	50.2	ug/L	2.2	7.3	1		11/08/2016 21:45	11/08/2016 21:45	NAH	EPA 6010C

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Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

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Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications

Kansas NELAP ID# E-10368
Kentucky ID# 0023
ISO/IEC 17025-2005 A2LA Cert # 3806.01
North Carolina ID# 674
Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID E871111, Expires Annually
Louisiana ID # 115843
Virginia ID# 7608
Illinois NELAP ID # 002413
Wisconsin (WOSB) ID# WI-5499-WBE
Maryland ID# 344

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase:
 Project #: 117-7413001.01
 Folder #: 123409
 Purchase Order #:
 Contract #: 2747

Page 1 of 5
 Arrival Temperature: 1.1
 Report Date: 11/30/2016
 Date Received: 11/03/2016
 Reprint Date: 11/30/2016

CT LAB#: 800083 Sample Description: PW-11

DNR License/Well #: 4189/058

Sampled: 11/02/2016 1645

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Organic Results										
1,1,1,2-Tetrachloroethane	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 12:06	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.050	ug/L	0.050	0.17	1	U		11/10/2016 12:06	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.017	ug/L	0.017	0.057	1	U		11/10/2016 12:06	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.050	ug/L	0.050	0.16	1	U		11/10/2016 12:06	RLD	EPA 8260C
1,1-Dichloroethane	<0.060	ug/L	0.060	0.19	1	U		11/10/2016 12:06	RLD	EPA 8260C
1,1-Dichloroethene	<0.060	ug/L	0.060	0.20	1	U		11/10/2016 12:06	RLD	EPA 8260C
1,1-Dichloropropene	<0.060	ug/L	0.060	0.19	1	U		11/10/2016 12:06	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 12:06	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.040	ug/L	0.040	0.14	1	U		11/10/2016 12:06	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.040	ug/L	0.040	0.12	1	U		11/10/2016 12:06	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.040	ug/L	0.040	0.12	1	U		11/10/2016 12:06	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.090	ug/L	0.090	0.29	1	U		11/10/2016 12:06	RLD	EPA 8260C
1,2-Dibromoethane	<0.070	ug/L	0.070	0.23	1	U		11/10/2016 12:06	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 12:06	RLD	EPA 8260C
1,2-Dichloroethane	<0.050	ug/L	0.050	0.18	1	U		11/10/2016 12:06	RLD	EPA 8260C
1,2-Dichloropropane	<0.070	ug/L	0.070	0.23	1	U		11/10/2016 12:06	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 800083 Sample Description:PW-11

DNR License/Well #: 4189/058

Sampled: 11/02/2016 1645

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,3,5-Trimethylbenzene	<0.050	ug/L	0.050	0.16	1	U		11/10/2016 12:06	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 12:06	RLD	EPA 8260C
1,3-Dichloropropane	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 12:06	RLD	EPA 8260C
1,4-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 12:06	RLD	EPA 8260C
2,2-Dichloropropane	<0.050	ug/L	0.050	0.15	1	U		11/10/2016 12:06	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.5	1	U		11/10/2016 12:06	RLD	EPA 8260C
2-Chlorotoluene	<0.030	ug/L	0.030	0.11	1	U		11/10/2016 12:06	RLD	EPA 8260C
2-Hexanone	<0.24	ug/L	0.24	0.81	1	U		11/10/2016 12:06	RLD	EPA 8260C
4-Chlorotoluene	<0.040	ug/L	0.040	0.12	1	U		11/10/2016 12:06	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.24	ug/L	0.24	0.82	1	U		11/10/2016 12:06	RLD	EPA 8260C
Acetone	<0.30	ug/L	0.30	1.0	1	U		11/10/2016 12:06	RLD	EPA 8260C
Benzene	<0.018	ug/L	0.018	0.059	1	U		11/10/2016 12:06	RLD	EPA 8260C
Bromobenzene	<0.040	ug/L	0.040	0.15	1	U		11/10/2016 12:06	RLD	EPA 8260C
Bromochloromethane	<0.030	ug/L	0.030	0.099	1	U		11/10/2016 12:06	RLD	EPA 8260C
Bromodichloromethane	<0.016	ug/L	0.016	0.054	1	U		11/10/2016 12:06	RLD	EPA 8260C
Bromoform	<0.040	ug/L	0.040	0.12	1	U Z		11/10/2016 12:06	RLD	EPA 8260C
Bromomethane	<0.080	ug/L	0.080	0.28	1	U		11/10/2016 12:06	RLD	EPA 8260C
Carbon disulfide	<0.070	ug/L	0.070	0.25	1	U		11/10/2016 12:06	RLD	EPA 8260C
Carbon tetrachloride	<0.050	ug/L	0.050	0.18	1	U		11/10/2016 12:06	RLD	EPA 8260C
Chlorobenzene	<0.040	ug/L	0.040	0.15	1	U		11/10/2016 12:06	RLD	EPA 8260C
Chloroethane	<0.070	ug/L	0.070	0.23	1	U		11/10/2016 12:06	RLD	EPA 8260C
Chloroform	<0.030	ug/L	0.030	0.11	1	U		11/10/2016 12:06	RLD	EPA 8260C
Chloromethane	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 12:06	RLD	EPA 8260C
cis-1,2-Dichloroethene	1.2	ug/L	0.070	0.23	1			11/10/2016 12:06	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.011	ug/L	0.011	0.038	1	U		11/10/2016 12:06	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1	U		11/10/2016 12:06	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 800083 Sample Description:PW-11

DNR License/Well #: 4189/058

Sampled: 11/02/2016 1645

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Dibromomethane	<0.050	ug/L	0.050	0.17	1	U		11/10/2016 12:06	RLD	EPA 8260C
Dichlorodifluoromethane	<0.060	ug/L	0.060	0.19	1	U		11/10/2016 12:06	RLD	EPA 8260C
Diisopropyl ether	0.14	ug/L	0.040	0.14	1			11/10/2016 12:06	RLD	EPA 8260C
Ethylbenzene	<0.040	ug/L	0.040	0.15	1	U		11/10/2016 12:06	RLD	EPA 8260C
Hexachlorobutadiene	<0.050	ug/L	0.050	0.16	1	U		11/10/2016 12:06	RLD	EPA 8260C
Isopropylbenzene	<0.040	ug/L	0.040	0.12	1	U		11/10/2016 12:06	RLD	EPA 8260C
m & p-Xylene	<0.070	ug/L	0.070	0.23	1	U		11/10/2016 12:06	RLD	EPA 8260C
Methyl tert-butyl ether	0.89	ug/L	0.040	0.12	1			11/10/2016 12:06	RLD	EPA 8260C
Methylene chloride	<0.050	ug/L	0.050	0.16	1	U		11/10/2016 12:06	RLD	EPA 8260C
n-Butylbenzene	<0.030	ug/L	0.030	0.11	1	U		11/10/2016 12:06	RLD	EPA 8260C
n-Propylbenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 12:06	RLD	EPA 8260C
Naphthalene	<0.030	ug/L	0.030	0.10	1	U		11/10/2016 12:06	RLD	EPA 8260C
o-Xylene	<0.040	ug/L	0.040	0.14	1	U		11/10/2016 12:06	RLD	EPA 8260C
p-Isopropyltoluene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 12:06	RLD	EPA 8260C
sec-Butylbenzene	<0.050	ug/L	0.050	0.16	1	U		11/10/2016 12:06	RLD	EPA 8260C
Styrene	<0.030	ug/L	0.030	0.11	1	U		11/10/2016 12:06	RLD	EPA 8260C
tert-Butylbenzene	<0.040	ug/L	0.040	0.14	1	U		11/10/2016 12:06	RLD	EPA 8260C
Tetrachloroethene	<0.050	ug/L	0.050	0.18	1	U		11/10/2016 12:06	RLD	EPA 8260C
Tetrahydrofuran	<0.40	ug/L	0.40	1.5	1	U		11/10/2016 12:06	RLD	EPA 8260C
Toluene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 12:06	RLD	EPA 8260C
trans-1,2-Dichloroethene	0.092	ug/L	0.040	0.14	1	J		11/10/2016 12:06	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.019	ug/L	0.019	0.063	1	U		11/10/2016 12:06	RLD	EPA 8260C
Trichloroethene	<0.050	ug/L	0.050	0.17	1	U		11/10/2016 12:06	RLD	EPA 8260C
Trichlorofluoromethane	<0.090	ug/L	0.090	0.14	1	U		11/10/2016 12:06	RLD	EPA 8260C
Vinyl acetate	<0.22	ug/L	0.22	0.73	1	U		11/10/2016 12:06	RLD	EPA 8260C
Vinyl chloride	<0.019	ug/L	0.019	0.064	1	U		11/10/2016 12:06	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 800083 Sample Description:PW-11 DNR License/Well #: 4189/058 Sampled: 11/02/2016 1645

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,4-Dioxane	<7.0	ug/L	7.0	23	1	U		11/10/2016 12:06	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications
Kansas NELAP ID# E-10368
Kentucky ID# 0023
ISO/IEC 17025-2005 A2LA Cert # 3806.01
North Carolina ID# 674
Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID E871111, Expires Annually
Louisiana ID # 115843
Virginia ID# 7608
Illinois NELAP ID # 002413
Wisconsin (WOSB) ID# WI-5499-WBE
Maryland ID# 344

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase:
 Project #: 117-7413001.01
 Folder #: 123409
 Purchase Order #:
 Contract #: 2747

Page 1 of 5
 Arrival Temperature: 1.1
 Report Date: 11/30/2016
 Date Received: 11/03/2016
 Reprint Date: 11/30/2016

CT LAB#: 800084 Sample Description: PW-03

DNR License/Well #: 4189/051

Sampled: 11/02/2016 1725

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Organic Results										
1,1,1,2-Tetrachloroethane	<0.040	ug/L	0.040	0.13	1	U	11/10/2016 12:35	11/10/2016 12:35	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.050	ug/L	0.050	0.17	1	U	11/10/2016 12:35	11/10/2016 12:35	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.017	ug/L	0.017	0.057	1	U	11/10/2016 12:35	11/10/2016 12:35	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.050	ug/L	0.050	0.16	1	U	11/10/2016 12:35	11/10/2016 12:35	RLD	EPA 8260C
1,1-Dichloroethane	<0.060	ug/L	0.060	0.19	1	U	11/10/2016 12:35	11/10/2016 12:35	RLD	EPA 8260C
1,1-Dichloroethene	<0.060	ug/L	0.060	0.20	1	U	11/10/2016 12:35	11/10/2016 12:35	RLD	EPA 8260C
1,1-Dichloropropene	<0.060	ug/L	0.060	0.19	1	U	11/10/2016 12:35	11/10/2016 12:35	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.040	ug/L	0.040	0.13	1	U	11/10/2016 12:35	11/10/2016 12:35	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.040	ug/L	0.040	0.14	1	U	11/10/2016 12:35	11/10/2016 12:35	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.040	ug/L	0.040	0.12	1	U	11/10/2016 12:35	11/10/2016 12:35	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.040	ug/L	0.040	0.12	1	U	11/10/2016 12:35	11/10/2016 12:35	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.090	ug/L	0.090	0.29	1	U	11/10/2016 12:35	11/10/2016 12:35	RLD	EPA 8260C
1,2-Dibromoethane	<0.070	ug/L	0.070	0.23	1	U	11/10/2016 12:35	11/10/2016 12:35	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U	11/10/2016 12:35	11/10/2016 12:35	RLD	EPA 8260C
1,2-Dichloroethane	<0.050	ug/L	0.050	0.18	1	U	11/10/2016 12:35	11/10/2016 12:35	RLD	EPA 8260C
1,2-Dichloropropane	<0.070	ug/L	0.070	0.23	1	U	11/10/2016 12:35	11/10/2016 12:35	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 800084 Sample Description:PW-03

DNR License/Well #: 4189/051

Sampled: 11/02/2016 1725

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,3,5-Trimethylbenzene	<0.050	ug/L	0.050	0.16	1	U		11/10/2016 12:35	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 12:35	RLD	EPA 8260C
1,3-Dichloropropane	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 12:35	RLD	EPA 8260C
1,4-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 12:35	RLD	EPA 8260C
2,2-Dichloropropane	<0.050	ug/L	0.050	0.15	1	U		11/10/2016 12:35	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.5	1	U		11/10/2016 12:35	RLD	EPA 8260C
2-Chlorotoluene	<0.030	ug/L	0.030	0.11	1	U		11/10/2016 12:35	RLD	EPA 8260C
2-Hexanone	<0.24	ug/L	0.24	0.81	1	U		11/10/2016 12:35	RLD	EPA 8260C
4-Chlorotoluene	<0.040	ug/L	0.040	0.12	1	U		11/10/2016 12:35	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.24	ug/L	0.24	0.82	1	U		11/10/2016 12:35	RLD	EPA 8260C
Acetone	<0.30	ug/L	0.30	1.0	1	U		11/10/2016 12:35	RLD	EPA 8260C
Benzene	<0.018	ug/L	0.018	0.059	1	U		11/10/2016 12:35	RLD	EPA 8260C
Bromobenzene	<0.040	ug/L	0.040	0.15	1	U		11/10/2016 12:35	RLD	EPA 8260C
Bromochloromethane	<0.030	ug/L	0.030	0.099	1	U		11/10/2016 12:35	RLD	EPA 8260C
Bromodichloromethane	<0.016	ug/L	0.016	0.054	1	U		11/10/2016 12:35	RLD	EPA 8260C
Bromoform	<0.040	ug/L	0.040	0.12	1	U Z		11/10/2016 12:35	RLD	EPA 8260C
Bromomethane	<0.080	ug/L	0.080	0.28	1	U		11/10/2016 12:35	RLD	EPA 8260C
Carbon disulfide	<0.070	ug/L	0.070	0.25	1	U		11/10/2016 12:35	RLD	EPA 8260C
Carbon tetrachloride	<0.050	ug/L	0.050	0.18	1	U		11/10/2016 12:35	RLD	EPA 8260C
Chlorobenzene	<0.040	ug/L	0.040	0.15	1	U		11/10/2016 12:35	RLD	EPA 8260C
Chloroethane	<0.070	ug/L	0.070	0.23	1	U		11/10/2016 12:35	RLD	EPA 8260C
Chloroform	<0.030	ug/L	0.030	0.11	1	U		11/10/2016 12:35	RLD	EPA 8260C
Chloromethane	0.042	ug/L	0.040	0.13	1	J		11/10/2016 12:35	RLD	EPA 8260C
cis-1,2-Dichloroethene	1.4	ug/L	0.070	0.23	1			11/10/2016 12:35	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.011	ug/L	0.011	0.038	1	U		11/10/2016 12:35	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1	U		11/10/2016 12:35	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

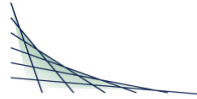
CT LAB#: 800084 Sample Description:PW-03

DNR License/Well #: 4189/051

Sampled: 11/02/2016 1725

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Dibromomethane	<0.050	ug/L	0.050	0.17	1	U		11/10/2016 12:35	RLD	EPA 8260C
Dichlorodifluoromethane	<0.060	ug/L	0.060	0.19	1	U		11/10/2016 12:35	RLD	EPA 8260C
Diisopropyl ether	<0.040	ug/L	0.040	0.14	1	U		11/10/2016 12:35	RLD	EPA 8260C
Ethylbenzene	<0.040	ug/L	0.040	0.15	1	U		11/10/2016 12:35	RLD	EPA 8260C
Hexachlorobutadiene	<0.050	ug/L	0.050	0.16	1	U		11/10/2016 12:35	RLD	EPA 8260C
Isopropylbenzene	<0.040	ug/L	0.040	0.12	1	U		11/10/2016 12:35	RLD	EPA 8260C
m & p-Xylene	<0.070	ug/L	0.070	0.23	1	U		11/10/2016 12:35	RLD	EPA 8260C
Methyl tert-butyl ether	0.60	ug/L	0.040	0.12	1			11/10/2016 12:35	RLD	EPA 8260C
Methylene chloride	<0.050	ug/L	0.050	0.16	1	U		11/10/2016 12:35	RLD	EPA 8260C
n-Butylbenzene	<0.030	ug/L	0.030	0.11	1	U		11/10/2016 12:35	RLD	EPA 8260C
n-Propylbenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 12:35	RLD	EPA 8260C
Naphthalene	<0.030	ug/L	0.030	0.10	1	U		11/10/2016 12:35	RLD	EPA 8260C
o-Xylene	<0.040	ug/L	0.040	0.14	1	U		11/10/2016 12:35	RLD	EPA 8260C
p-Isopropyltoluene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 12:35	RLD	EPA 8260C
sec-Butylbenzene	<0.050	ug/L	0.050	0.16	1	U		11/10/2016 12:35	RLD	EPA 8260C
Styrene	0.11	ug/L	0.030	0.11	1			11/10/2016 12:35	RLD	EPA 8260C
tert-Butylbenzene	<0.040	ug/L	0.040	0.14	1	U		11/10/2016 12:35	RLD	EPA 8260C
Tetrachloroethene	<0.050	ug/L	0.050	0.18	1	U		11/10/2016 12:35	RLD	EPA 8260C
Tetrahydrofuran	<0.40	ug/L	0.40	1.5	1	U		11/10/2016 12:35	RLD	EPA 8260C
Toluene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 12:35	RLD	EPA 8260C
trans-1,2-Dichloroethene	0.066	ug/L	0.040	0.14	1	J		11/10/2016 12:35	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.019	ug/L	0.019	0.063	1	U		11/10/2016 12:35	RLD	EPA 8260C
Trichloroethene	0.62	ug/L	0.050	0.17	1			11/10/2016 12:35	RLD	EPA 8260C
Trichlorofluoromethane	<0.090	ug/L	0.090	0.14	1	U		11/10/2016 12:35	RLD	EPA 8260C
Vinyl acetate	<0.22	ug/L	0.22	0.73	1	U		11/10/2016 12:35	RLD	EPA 8260C
Vinyl chloride	<0.019	ug/L	0.019	0.064	1	U		11/10/2016 12:35	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis



TETRA TECH
 Project Name: OCONOMOWOC ELECTROPLATING
 Project #: 117-7413001.01
 Project Phase:

Contract #: 2747
 Folder #: 123409
 Page 4 of 5

CT LAB#: 800084 Sample Description:PW-03

DNR License/Well #: 4189/051

Sampled: 11/02/2016 1725

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,4-Dioxane	<7.0	ug/L	7.0	23	1	U		11/10/2016 12:35	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications
Kansas NELAP ID# E-10368
Kentucky ID# 0023
ISO/IEC 17025-2005 A2LA Cert # 3806.01
North Carolina ID# 674
Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID E8711111, Expires Annually
Louisiana ID # 115843
Virginia ID# 7608
Illinois NELAP ID # 002413
Wisconsin (WOSB) ID# WI-5499-WBE
Maryland ID# 344

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase:
 Project #: 117-7413001.01
 Folder #: 123409
 Purchase Order #:
 Contract #: 2747

Page 1 of 5
 Arrival Temperature: 1.1
 Report Date: 11/30/2016
 Date Received: 11/03/2016
 Reprint Date: 11/30/2016

CT LAB#: 800085 Sample Description: TB-2

DNR License/Well #: 4189/999 Sampled: 11/02/2016

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Organic Results										
1,1,1,2-Tetrachloroethane	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 19:11	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.050	ug/L	0.050	0.17	1	U		11/09/2016 19:11	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.017	ug/L	0.017	0.057	1	U		11/09/2016 19:11	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.050	ug/L	0.050	0.16	1	U		11/09/2016 19:11	RLD	EPA 8260C
1,1-Dichloroethane	<0.060	ug/L	0.060	0.19	1	U		11/09/2016 19:11	RLD	EPA 8260C
1,1-Dichloroethene	<0.060	ug/L	0.060	0.20	1	U		11/09/2016 19:11	RLD	EPA 8260C
1,1-Dichloropropene	<0.060	ug/L	0.060	0.19	1	U		11/09/2016 19:11	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 19:11	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.040	ug/L	0.040	0.14	1	U		11/09/2016 19:11	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.040	ug/L	0.040	0.12	1	U		11/09/2016 19:11	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.040	ug/L	0.040	0.12	1	U		11/09/2016 19:11	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.090	ug/L	0.090	0.29	1	U		11/09/2016 19:11	RLD	EPA 8260C
1,2-Dibromoethane	<0.070	ug/L	0.070	0.23	1	U		11/09/2016 19:11	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 19:11	RLD	EPA 8260C
1,2-Dichloroethane	<0.050	ug/L	0.050	0.18	1	U		11/09/2016 19:11	RLD	EPA 8260C
1,2-Dichloropropane	<0.070	ug/L	0.070	0.23	1	U		11/09/2016 19:11	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 800085 Sample Description:TB-2

DNR License/Well #: 4189/999

Sampled: 11/02/2016

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,3,5-Trimethylbenzene	<0.050	ug/L	0.050	0.16	1	U		11/09/2016 19:11	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 19:11	RLD	EPA 8260C
1,3-Dichloropropane	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 19:11	RLD	EPA 8260C
1,4-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 19:11	RLD	EPA 8260C
2,2-Dichloropropane	<0.050	ug/L	0.050	0.15	1	U		11/09/2016 19:11	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.5	1	U		11/09/2016 19:11	RLD	EPA 8260C
2-Chlorotoluene	<0.030	ug/L	0.030	0.11	1	U		11/09/2016 19:11	RLD	EPA 8260C
2-Hexanone	<0.24	ug/L	0.24	0.81	1	U		11/09/2016 19:11	RLD	EPA 8260C
4-Chlorotoluene	<0.040	ug/L	0.040	0.12	1	U		11/09/2016 19:11	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.24	ug/L	0.24	0.82	1	U		11/09/2016 19:11	RLD	EPA 8260C
Acetone	<0.30	ug/L	0.30	1.0	1	U		11/09/2016 19:11	RLD	EPA 8260C
Benzene	<0.018	ug/L	0.018	0.059	1	U		11/09/2016 19:11	RLD	EPA 8260C
Bromobenzene	<0.040	ug/L	0.040	0.15	1	U		11/09/2016 19:11	RLD	EPA 8260C
Bromochloromethane	<0.030	ug/L	0.030	0.099	1	U		11/09/2016 19:11	RLD	EPA 8260C
Bromodichloromethane	<0.016	ug/L	0.016	0.054	1	U		11/09/2016 19:11	RLD	EPA 8260C
Bromoform	<0.040	ug/L	0.040	0.12	1	U		11/09/2016 19:11	RLD	EPA 8260C
Bromomethane	<0.080	ug/L	0.080	0.28	1	U Z		11/09/2016 19:11	RLD	EPA 8260C
Carbon disulfide	<0.070	ug/L	0.070	0.25	1	U		11/09/2016 19:11	RLD	EPA 8260C
Carbon tetrachloride	<0.050	ug/L	0.050	0.18	1	U		11/09/2016 19:11	RLD	EPA 8260C
Chlorobenzene	<0.040	ug/L	0.040	0.15	1	U		11/09/2016 19:11	RLD	EPA 8260C
Chloroethane	<0.070	ug/L	0.070	0.23	1	U		11/09/2016 19:11	RLD	EPA 8260C
Chloroform	<0.030	ug/L	0.030	0.11	1	U		11/09/2016 19:11	RLD	EPA 8260C
Chloromethane	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 19:11	RLD	EPA 8260C
cis-1,2-Dichloroethene	<0.070	ug/L	0.070	0.23	1	U		11/09/2016 19:11	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.011	ug/L	0.011	0.038	1	U		11/09/2016 19:11	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1	U		11/09/2016 19:11	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 800085 Sample Description:TB-2

DNR License/Well #: 4189/999

Sampled: 11/02/2016

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Dibromomethane	<0.050	ug/L	0.050	0.17	1	U		11/09/2016 19:11	RLD	EPA 8260C
Dichlorodifluoromethane	<0.060	ug/L	0.060	0.19	1	U		11/09/2016 19:11	RLD	EPA 8260C
Diisopropyl ether	<0.040	ug/L	0.040	0.14	1	U		11/09/2016 19:11	RLD	EPA 8260C
Ethylbenzene	<0.040	ug/L	0.040	0.15	1	U		11/09/2016 19:11	RLD	EPA 8260C
Hexachlorobutadiene	<0.050	ug/L	0.050	0.16	1	U		11/09/2016 19:11	RLD	EPA 8260C
Isopropylbenzene	<0.040	ug/L	0.040	0.12	1	U		11/09/2016 19:11	RLD	EPA 8260C
m & p-Xylene	<0.070	ug/L	0.070	0.23	1	U		11/09/2016 19:11	RLD	EPA 8260C
Methyl tert-butyl ether	<0.040	ug/L	0.040	0.12	1	U		11/09/2016 19:11	RLD	EPA 8260C
Methylene chloride	<0.050	ug/L	0.050	0.16	1	U		11/09/2016 19:11	RLD	EPA 8260C
n-Butylbenzene	<0.030	ug/L	0.030	0.11	1	U		11/09/2016 19:11	RLD	EPA 8260C
n-Propylbenzene	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 19:11	RLD	EPA 8260C
Naphthalene	<0.030	ug/L	0.030	0.10	1	U		11/09/2016 19:11	RLD	EPA 8260C
o-Xylene	<0.040	ug/L	0.040	0.14	1	U		11/09/2016 19:11	RLD	EPA 8260C
p-Isopropyltoluene	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 19:11	RLD	EPA 8260C
sec-Butylbenzene	<0.050	ug/L	0.050	0.16	1	U		11/09/2016 19:11	RLD	EPA 8260C
Styrene	<0.030	ug/L	0.030	0.11	1	U		11/09/2016 19:11	RLD	EPA 8260C
tert-Butylbenzene	<0.040	ug/L	0.040	0.14	1	U		11/09/2016 19:11	RLD	EPA 8260C
Tetrachloroethene	<0.050	ug/L	0.050	0.18	1	U		11/09/2016 19:11	RLD	EPA 8260C
Tetrahydrofuran	0.48	ug/L	0.40	1.5	1	J		11/09/2016 19:11	RLD	EPA 8260C
Toluene	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 19:11	RLD	EPA 8260C
trans-1,2-Dichloroethene	<0.040	ug/L	0.040	0.14	1	U		11/09/2016 19:11	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.019	ug/L	0.019	0.063	1	U		11/09/2016 19:11	RLD	EPA 8260C
Trichloroethene	<0.050	ug/L	0.050	0.17	1	U		11/09/2016 19:11	RLD	EPA 8260C
Trichlorofluoromethane	<0.090	ug/L	0.090	0.14	1	U		11/09/2016 19:11	RLD	EPA 8260C
Vinyl acetate	<0.22	ug/L	0.22	0.73	1	U		11/09/2016 19:11	RLD	EPA 8260C
Vinyl chloride	<0.019	ug/L	0.019	0.064	1	U		11/09/2016 19:11	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 800085 Sample Description:TB-2 DNR License/Well #: 4189/999 Sampled: 11/02/2016

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,4-Dioxane	<7.0	ug/L	7.0	23	1	U		11/09/2016 19:11	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

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Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications
Kansas NELAP ID# E-10368
Kentucky ID# 0023
ISO/IEC 17025-2005 A2LA Cert # 3806.01
North Carolina ID# 674
Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID E8711111, Expires Annually
Louisiana ID # 115843
Virginia ID# 7608
Illinois NELAP ID # 002413
Wisconsin (WOSB) ID# WI-5499-WBE
Maryland ID# 344

QC SUMMARY REPORT

TETRA TECH

SDG #: 0

Folder #: 123409

**Project Name: OCONOMOWOC
 ELECTROPLATING
 Project Number: 117-7413001.01**

Duplicate

Analytical Run #:	132309	Analysis Date:	11/04/2016	Prep Batch #:	Matrix:	GROUND WATER
CTLab #:	801438	Analysis Time:	17:32	Prep Date/Time:	Method:	SW9056A
Parent Sample #:	800069	Analyst:	JJF	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Chloride	303	mg/L	300					1	20
Total Sulfate	85.4	mg/L	85					0	20

TETRA TECH

SDG #: 0

Folder #: 123409

Project Name: OCONOMOWOC
ELECTROPLATING
Project Number: 117-7413001.01

Lab Control Spike Water

Analytical Run #:	132309	Analysis Date:	11/04/2016	Prep Batch #:		Matrix:	LIQUID
CTLab #:	801439	Analysis Time:	11:15	Prep Date/Time:		Method:	SW9056A
Parent Sample #:		Analyst:	JJF	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Chloride	15.98	mg/L			15.00	107	80 --- 120		
Sulfate	26.14	mg/L			25.00	105	80 --- 120		

TETRA TECH

SDG #: 0

Folder #: 123409

Project Name: OCONOMOWOC
ELECTROPLATING
Project Number: 117-7413001.01

Method Blank Water

Analytical Run #:	132309	Analysis Date:	11/04/2016	Prep Batch #:		Matrix:	LIQUID
CTLab #:	801433	Analysis Time:	11:39	Prep Date/Time:		Method:	SW9056A
Parent Sample #:		Analyst:	JJF	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Chloride	0.7	mg/L		U	0		0.7		
Sulfate	1.0	mg/L		U	0		1.0		

TETRA TECH

SDG #: 0

Folder #: 123409

Project Name: OCONOMOWOC

ELECTROPLATING

Project Number: 117-7413001.01

Matrix Spike Water

Analytical Run #:	132309	Analysis Date:	11/04/2016	Prep Batch #:	Matrix:	GROUND WATER
CTLab #:	801437	Analysis Time:	17:53	Prep Date/Time:	Method:	SW9056A
Parent Sample #:	800069	Analyst:	JJF	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Chloride	363	mg/L	300		40.0	158	80 --- 120		20
Total Sulfate	136	mg/L	85		40.0	128	80 --- 120		20

TETRA TECH

SDG #: 0

Folder #: 123409

Project Name: OCONOMOWOC

ELECTROPLATING

Project Number: 117-7413001.01

Lab Control Spike Water

Analytical Run #:	132380	Analysis Date:	11/07/2016	Prep Batch #:		Matrix:	LIQUID
CTLab #:	802096	Analysis Time:	12:19	Prep Date/Time:		Method:	SW9060
Parent Sample #:		Analyst:	JJF	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Organic Carbon	49.20	mg/L			50.00	98	85 --- 111		

TETRA TECH

SDG #: 0

Folder #: 123409

Project Name: OCONOMOWOC
ELECTROPLATING
Project Number: 117-7413001.01

Method Blank Water

Analytical Run #:	132380	Analysis Date:	11/07/2016	Prep Batch #:		Matrix:	LIQUID
CTLab #:	802097	Analysis Time:	12:33	Prep Date/Time:		Method:	SW9060
Parent Sample #:		Analyst:	JJF	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Organic Carbon	0.5	mg/L		U	0		0.5		

TETRA TECH

SDG #: 0

Folder #: 123409

Project Name: OCONOMOWOC
ELECTROPLATING
Project Number: 117-7413001.01

Method Blank Water

Analytical Run #:	132380	Analysis Date:	11/07/2016	Prep Batch #:		Matrix:	LIQUID
CTLab #:	802108	Analysis Time:	18:04	Prep Date/Time:		Method:	SW9060
Parent Sample #:		Analyst:	JJF	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Dissolved Organic Carbon	0.5	mg/L		U	0		0.5		
Total Organic Carbon	0.5	mg/L		U	0		0.5		

TETRA TECH

SDG #: 0

Folder #: 123409

Project Name: OCONOMOWOC

ELECTROPLATING

Project Number: 117-7413001.01

Duplicate

Analytical Run #:	132381	Analysis Date:	11/07/2016	Prep Batch #:	Matrix:	GROUND WATER
CTLab #:	802123	Analysis Time:	19:47	Prep Date/Time:	Method:	SW9060
Parent Sample #:	800081	Analyst:	JJF	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Organic Carbon	1.68	mg/L	1.6					5	20

TETRA TECH

SDG #: 0

Folder #: 123409

Project Name: OCONOMOWOC
ELECTROPLATING
Project Number: 117-7413001.01

Lab Control Spike Water

Analytical Run #:	132381	Analysis Date:	11/07/2016	Prep Batch #:		Matrix:	LIQUID
CTLab #:	802121	Analysis Time:	17:49	Prep Date/Time:		Method:	SW9060
Parent Sample #:		Analyst:	JJF	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Organic Carbon	50.16	mg/L			50.00	100	85 --- 111		

TETRA TECH

SDG #: 0

Folder #: 123409

Project Name: OCONOMOWOC
ELECTROPLATING
Project Number: 117-7413001.01

Method Blank Water

Analytical Run #:	132381	Analysis Date:	11/07/2016	Prep Batch #:		Matrix:	LIQUID
CTLab #:	802122	Analysis Time:	18:04	Prep Date/Time:		Method:	SW9060
Parent Sample #:		Analyst:	JJF	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Organic Carbon	0.5	mg/L		U	0		0.5		

TETRA TECH

SDG #: 0

Folder #: 123409

Project Name: OCONOMOWOC

ELECTROPLATING

Project Number: 117-7413001.01

Matrix Spike Duplicate Water

Analytical Run #:	132381	Analysis Date:	11/07/2016	Prep Batch #:	Matrix:	GROUND WATER
CTLab #:	802125	Analysis Time:	20:13	Prep Date/Time:	Method:	SW9060
Parent Sample #:	802124	Analyst:	JJF	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Organic Carbon	51.4	mg/L	1.6		50.0	100	82 --- 119	2	6

TETRA TECH

SDG #: 0

Folder #: 123409

Project Name: OCONOMOWOC

ELECTROPLATING

Project Number: 117-7413001.01

Matrix Spike Water

Analytical Run #:	132381	Analysis Date:	11/07/2016	Prep Batch #:		Matrix:	GROUND WATER
CTLab #:	802124	Analysis Time:	19:59	Prep Date/Time:		Method:	SW9060
Parent Sample #:	800081	Analyst:	JJF	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Organic Carbon	52.2	mg/L	1.6		50.0	101	82 --- 119		6

TETRA TECH

SDG #: 0

Folder #: 123409

Project Name: OCONOMOWOC
ELECTROPLATING
Project Number: 117-7413001.01

Duplicate

Analytical Run #:	132600	Analysis Date:	11/11/2016	Prep Batch #:	Matrix:	GROUND WATER
CTLab #:	805051	Analysis Time:	10:43	Prep Date/Time:	Method:	E310.2
Parent Sample #:	800073	Analyst:	DC	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Alkalinity Dissolved	465	mg/L	470					1	10
Alkalinity Total	465	mg/L	470					1	7

TETRA TECH

SDG #: 0

Folder #: 123409

Project Name: OCONOMOWOC
ELECTROPLATING
Project Number: 117-7413001.01

Lab Control Spike Water

Analytical Run #:	132600	Analysis Date:	11/11/2016	Prep Batch #:	Matrix:	LIQUID
CTLab #:	804113	Analysis Time:	10:38	Prep Date/Time:	Method:	E310.2
Parent Sample #:		Analyst:	SAW	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Alkalinity	367.0	mg/L			375.0	98	90 --- 110		

TETRA TECH

SDG #: 0

Folder #: 123409

Project Name: OCONOMOWOC

ELECTROPLATING

Project Number: 117-7413001.01

Method Blank Water

Analytical Run #:	132600	Analysis Date:	11/11/2016	Prep Batch #:		Matrix:	LIQUID
CTLab #:	804112	Analysis Time:	10:44	Prep Date/Time:		Method:	E310.2
Parent Sample #:		Analyst:	SAW	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Alkalinity	5	mg/L		U	0			5	

TETRA TECH

SDG #: 0

Folder #: 123409

Project Name: OCONOMOWOC
ELECTROPLATING
Project Number: 117-7413001.01

Lab Control Spike Water

Analytical Run #:	132487	Analysis Date:	11/09/2016	Prep Batch #:	60016	Matrix:	LIQUID
CTLab #:	801337	Analysis Time:	20:01	Prep Date/Time:	11/08/2016 15:00	Method:	SW6010
Parent Sample #:		Analyst:	NAH	Prep Analyst:	NAH		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Iron	0.3830	mg/L			0.4000	96	80 --- 115		
Manganese	214.0	ug/L			200.0	107	86 --- 112		

TETRA TECH

SDG #: 0

Folder #: 123409

Project Name: OCONOMOWOC
ELECTROPLATING
Project Number: 117-7413001.01

Method Blank Water

Analytical Run #:	132487	Analysis Date:	11/09/2016	Prep Batch #:	60016	Matrix:	LIQUID
CTLab #:	801336	Analysis Time:	20:08	Prep Date/Time:	11/08/2016 15:00	Method:	SW6010
Parent Sample #:		Analyst:	NAH	Prep Analyst:	NAH		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Iron	0.034	mg/L		U	0		0.034		
Manganese	3.4	ug/L		U	0		3.4		

Lab Control Spike Water

Analytical Run #:	132322	Analysis Date:	11/09/2016	Prep Batch #:	Matrix:	LIQUID
CTLab #:	803728	Analysis Time:	16:46	Prep Date/Time:	Method:	SW8260C
Parent Sample #:		Analyst:	RLD	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	3.73	ug/L			4.00	93	74 --- 127		
1,1,1-Trichloroethane	3.70	ug/L			4.00	92	73 --- 132		
1,1,2,2-Tetrachloroethane	3.70	ug/L			4.00	92	67 --- 129		
1,1,2-Trichloroethane	3.72	ug/L			4.00	93	73 --- 129		
1,1-Dichloroethane	3.63	ug/L			4.00	91	73 --- 129		
1,1-Dichloroethene	3.55	ug/L			4.00	89	73 --- 132		
1,1-Dichloropropene	3.66	ug/L			4.00	92	75 --- 125		
1,2-Dichloroethane-d4	97.0	% Recovery			100	97.0	68 --- 120		
1,2,3-Trichlorobenzene	3.97	ug/L			4.00	99	72 --- 125		
1,2,3-Trichloropropane	3.22	ug/L			4.00	80	68 --- 136		
1,2,4-Trichlorobenzene	4.05	ug/L			4.00	101	67 --- 124		
1,2,4-Trimethylbenzene	3.86	ug/L			4.00	96	77 --- 123		
1,2-Dibromo-3-chloropropane	3.52	ug/L			4.00	88	56 --- 138		
1,2-Dibromoethane	3.68	ug/L			4.00	92	76 --- 127		
1,2-Dichlorobenzene	3.98	ug/L			4.00	100	82 --- 120		
1,2-Dichloroethane	3.68	ug/L			4.00	92	72 --- 134		
1,2-Dichloropropane	3.70	ug/L			4.00	92	76 --- 124		
1,3,5-Trimethylbenzene	3.98	ug/L			4.00	100	77 --- 124		
1,3-Dichlorobenzene	4.01	ug/L			4.00	100	81 --- 120		
1,3-Dichloropropane	3.57	ug/L			4.00	89	76 --- 125		
1,4-Dichlorobenzene	4.06	ug/L			4.00	102	80 --- 120		
2,2-Dichloropropane	4.03	ug/L			4.00	101	54 --- 144		
2-Butanone	34.1	ug/L			40.0	85	57 --- 144		
2-Chlorotoluene	3.94	ug/L			4.00	98	77 --- 123		
2-Hexanone	35.3	ug/L			40.0	88	61 --- 132		
4-Chlorotoluene	3.99	ug/L			4.00	100	76 --- 124		
4-Methyl-2-pentanone	34.1	ug/L			40.0	85	64 --- 135		
Acetone	33.3	ug/L			40.0	83	51 --- 152		
Benzene	3.70	ug/L			4.00	92	80 --- 122		
Bromobenzene	3.99	ug/L			4.00	100	81 --- 120		
Bromochloromethane	3.42	ug/L			4.00	86	78 --- 126		
Bromodichloromethane	3.59	ug/L			4.00	90	67 --- 132		
Bromofluorobenzene	100	% Recovery			100	100	68 --- 120		
Bromoform	3.26	ug/L			4.00	82	55 --- 132		
Bromomethane	3.07	ug/L			4.00	77	65 --- 141		
Carbon disulfide	7.24	ug/L			8.00	90	61 --- 140		
Carbon tetrachloride	3.89	ug/L			4.00	97	72 --- 133		
Chlorobenzene	3.83	ug/L			4.00	96	80 --- 122		
Chloroethane	4.10	ug/L			4.00	102	71 --- 134		
Chloroform	3.61	ug/L			4.00	90	73 --- 127		
Chloromethane	3.64	ug/L			4.00	91	72 --- 128		
cis-1,2-Dichloroethene	3.80	ug/L			4.00	95	76 --- 127		

Lab Control Spike Water

Analytical Run #:	132322	Analysis Date:	11/09/2016	Prep Batch #:	Matrix:	LIQUID
CTLab #:	803728	Analysis Time:	16:46	Prep Date/Time:	Method:	SW8260C
Parent Sample #:		Analyst:	RLD	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
cis-1,3-Dichloropropene	3.67	ug/L			4.00	92	72 --- 125		
d8-Toluene	99.0	% Recovery			100	99.0	71 --- 117		
Dibromochloromethane	3.54	ug/L			4.00	88	60 --- 131		
Dibromofluoromethane	100	% Recovery			100	100	67 --- 121		
Dibromomethane	3.56	ug/L			4.00	89	76 --- 129		
Dichlorodifluoromethane	3.90	ug/L			4.00	98	64 --- 149		
Diisopropyl ether	3.61	ug/L			4.00	90	62 --- 137		
Ethylbenzene	3.91	ug/L			4.00	98	80 --- 121		
Hexachlorobutadiene	3.94	ug/L			4.00	98	71 --- 131		
Isopropylbenzene	3.85	ug/L			4.00	96	75 --- 122		
m & p-Xylene	7.75	ug/L			8.00	97	80 --- 121		
Methyl tert-butyl ether	3.52	ug/L			4.00	88	63 --- 135		
Methylene chloride	3.98	ug/L			4.00	100	38 --- 174		
n-Butylbenzene	3.95	ug/L			4.00	99	71 --- 125		
n-Propylbenzene	4.01	ug/L			4.00	100	76 --- 122		
Naphthalene	3.80	ug/L			4.00	95	64 --- 126		
o-Xylene	3.85	ug/L			4.00	96	77 --- 120		
p-Isopropyltoluene	4.01	ug/L			4.00	100	76 --- 122		
sec-Butylbenzene	3.92	ug/L			4.00	98	75 --- 122		
Styrene	3.80	ug/L			4.00	95	76 --- 121		
tert-Butylbenzene	3.93	ug/L			4.00	98	77 --- 120		
Tetrachloroethene	3.79	ug/L			4.00	95	75 --- 127		
Tetrahydrofuran	33.5	ug/L			40.0	84	60 --- 131		
Toluene	3.65	ug/L			4.00	91	80 --- 122		
trans-1,2-Dichloroethene	3.62	ug/L			4.00	90	68 --- 136		
trans-1,3-Dichloropropene	3.58	ug/L			4.00	90	65 --- 126		
Trichloroethene	3.69	ug/L			4.00	92	78 --- 126		
Trichlorofluoromethane	3.69	ug/L			4.00	92	70 --- 145		
Vinyl acetate	36.4	ug/L			40.0	91	38 --- 152		
Vinyl chloride	3.85	ug/L			4.00	96	71 --- 135		

Method Blank Water

Analytical Run #: 132322	Analysis Date: 11/09/2016	Prep Batch #:	Matrix: LIQUID
CTLab #: 808076	Analysis Time: 18:13	Prep Date/Time:	Method: SW8260C
Parent Sample #:	Analyst: RLD	Prep Analyst:	

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	0.04	ug/L		U	0		0.04		
1,1,1-Trichloroethane	0.05	ug/L		U	0		0.05		
1,1,2,2-Tetrachloroethane	0.017	ug/L		U	0		0.017		
1,1,2-Trichloroethane	0.05	ug/L		U	0		0.05		
1,1-Dichloroethane	0.06	ug/L		U	0		0.06		
1,1-Dichloroethene	0.06	ug/L		U	0		0.06		
1,1-Dichloropropene	0.06	ug/L		U	0		0.06		
1,2 Dichloroethane-d4	101	% Recovery			100	101	68 --- 120		
1,2,3-Trichlorobenzene	0.04	ug/L		U	0		0.04		
1,2,3-Trichloropropane	0.04	ug/L		U	0		0.04		
1,2,4-Trichlorobenzene	0.04	ug/L		U	0		0.04		
1,2,4-Trimethylbenzene	0.04	ug/L		U	0		0.04		
1,2-Dibromo-3-chloropropane	0.09	ug/L		U	0		0.09		
1,2-Dibromoethane	0.07	ug/L		U	0		0.07		
1,2-Dichlorobenzene	0.04	ug/L		U	0		0.04		
1,2-Dichloroethane	0.05	ug/L		U	0		0.05		
1,2-Dichloropropane	0.07	ug/L		U	0		0.07		
1,3,5-Trimethylbenzene	0.05	ug/L		U	0		0.05		
1,3-Dichlorobenzene	0.04	ug/L		U	0		0.04		
1,3-Dichloropropane	0.04	ug/L		U	0		0.04		
1,4-Dichlorobenzene	0.04	ug/L		U	0		0.04		
2,2-Dichloropropane	0.05	ug/L		U	0		0.05		
2-Butanone	0.5	ug/L		U	0		0.5		
2-Chlorotoluene	0.03	ug/L		U	0		0.03		
2-Hexanone	0.24	ug/L		U	0		0.24		
4-Chlorotoluene	0.04	ug/L		U	0		0.04		
4-Methyl-2-pentanone	0.24	ug/L		U	0		0.24		
Acetone	0.455	ug/L			0		0.30		
Benzene	0.018	ug/L		U	0		0.018		
Bromobenzene	0.04	ug/L		U	0		0.04		
Bromochloromethane	0.030	ug/L		U	0		0.030		
Bromodichloromethane	0.016	ug/L		U	0		0.016		
Bromofluorobenzene	98.0	% Recovery			100	98.0	68 --- 120		
Bromoform	0.04	ug/L		U	0		0.04		
Bromomethane	0.08	ug/L		U	0		0.08		
Carbon disulfide	0.07	ug/L		U	0		0.07		
Carbon tetrachloride	0.05	ug/L		U	0		0.05		
Chlorobenzene	0.04	ug/L		U	0		0.04		
Chloroethane	0.07	ug/L		U	0		0.07		
Chloroform	0.03	ug/L		U	0		0.03		
Chloromethane	0.04	ug/L		U	0		0.04		
cis-1,2-Dichloroethene	0.07	ug/L		U	0		0.07		

Method Blank Water

Analytical Run #:	132322	Analysis Date:	11/09/2016	Prep Batch #:	Matrix:	LIQUID
CTLab #:	808076	Analysis Time:	18:13	Prep Date/Time:	Method:	SW8260C
Parent Sample #:		Analyst:	RLD	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
cis-1,3-Dichloropropene	0.011	ug/L		U	0		0.011		
d8-Toluene	101	% Recovery			100	101	71 --- 117		
Dibromochloromethane	0.03	ug/L		U	0		0.03		
Dibromofluoromethane	103	% Recovery			100	103	67 --- 122		
Dibromomethane	0.05	ug/L		U	0		0.05		
Dichlorodifluoromethane	0.06	ug/L		U	0		0.06		
Diisopropyl ether	0.04	ug/L		U	0		0.04		
Ethylbenzene	0.04	ug/L		U	0		0.04		
Hexachlorobutadiene	0.05	ug/L		U	0		0.05		
Isopropylbenzene	0.04	ug/L		U	0		0.04		
m & p-Xylene	0.07	ug/L		U	0		0.07		
Methyl tert-butyl ether	0.04	ug/L		U	0		0.04		
Methylene chloride	0.05	ug/L		U	0		0.05		
n-Butylbenzene	0.03	ug/L		U	0		0.03		
n-Propylbenzene	0.04	ug/L		U	0		0.04		
Naphthalene	0.03	ug/L		U	0		0.03		
o-Xylene	0.04	ug/L		U	0		0.04		
p-Isopropyltoluene	0.04	ug/L		U	0		0.04		
sec-Butylbenzene	0.05	ug/L		U	0		0.05		
Styrene	0.03	ug/L		U	0		0.03		
tert-Butylbenzene	0.04	ug/L		U	0		0.04		
Tetrachloroethene	0.05	ug/L		U	0		0.05		
Tetrahydrofuran	0.4	ug/L		U	0		0.4		
Toluene	0.04	ug/L		U	0		0.04		
trans-1,2-Dichloroethene	0.04	ug/L		U	0		0.04		
trans-1,3-Dichloropropene	0.019	ug/L		U	0		0.019		
Trichloroethene	0.05	ug/L		U	0		0.05		
Trichlorofluoromethane	0.09	ug/L		U	0		0.09		
Vinyl acetate	0.22	ug/L		U	0		0.22		
Vinyl chloride	0.019	ug/L		U	0		0.019		

Lab Control Spike Water

Analytical Run #:	132323	Analysis Date:	11/10/2016	Prep Batch #:	Matrix:	LIQUID
CTLab #:	803821	Analysis Time:	08:12	Prep Date/Time:	Method:	SW8260C
Parent Sample #:		Analyst:	RLD	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	3.70	ug/L			4.00	92	74 --- 127		
1,1,1-Trichloroethane	3.79	ug/L			4.00	95	73 --- 132		
1,1,2,2-Tetrachloroethane	3.60	ug/L			4.00	90	67 --- 129		
1,1,2-Trichloroethane	3.61	ug/L			4.00	90	73 --- 129		
1,1-Dichloroethane	3.75	ug/L			4.00	94	73 --- 129		
1,1-Dichloroethene	3.74	ug/L			4.00	94	73 --- 132		
1,1-Dichloropropene	3.76	ug/L			4.00	94	75 --- 125		
1,2 Dichloroethane-d4	98.0	% Recovery			100	98.0	68 --- 120		
1,2,3-Trichlorobenzene	3.96	ug/L			4.00	99	72 --- 125		
1,2,3-Trichloropropane	3.18	ug/L			4.00	80	68 --- 136		
1,2,4-Trichlorobenzene	4.06	ug/L			4.00	102	67 --- 124		
1,2,4-Trimethylbenzene	3.87	ug/L			4.00	97	77 --- 123		
1,2-Dibromo-3-chloropropane	3.32	ug/L			4.00	83	56 --- 138		
1,2-Dibromoethane	3.69	ug/L			4.00	92	76 --- 127		
1,2-Dichlorobenzene	4.01	ug/L			4.00	100	82 --- 120		
1,2-Dichloroethane	3.69	ug/L			4.00	92	72 --- 134		
1,2-Dichloropropane	3.73	ug/L			4.00	93	76 --- 124		
1,3,5-Trimethylbenzene	3.99	ug/L			4.00	100	77 --- 124		
1,3-Dichlorobenzene	4.08	ug/L			4.00	102	81 --- 120		
1,3-Dichloropropane	3.58	ug/L			4.00	90	76 --- 125		
1,4-Dichlorobenzene	4.07	ug/L			4.00	102	80 --- 120		
2,2-Dichloropropane	3.98	ug/L			4.00	100	54 --- 144		
2-Butanone	35.1	ug/L			40.0	88	57 --- 144		
2-Chlorotoluene	4.05	ug/L			4.00	101	77 --- 123		
2-Hexanone	35.4	ug/L			40.0	88	61 --- 132		
4-Chlorotoluene	3.94	ug/L			4.00	98	76 --- 124		
4-Methyl-2-pentanone	34.4	ug/L			40.0	86	64 --- 135		
Acetone	33.2	ug/L			40.0	83	51 --- 152		
Benzene	3.82	ug/L			4.00	96	80 --- 122		
Bromobenzene	3.97	ug/L			4.00	99	81 --- 120		
Bromochloromethane	3.61	ug/L			4.00	90	78 --- 126		
Bromodichloromethane	3.52	ug/L			4.00	88	67 --- 132		
Bromofluorobenzene	98.0	% Recovery			100	98.0	68 --- 120		
Bromoform	2.96	ug/L			4.00	74	55 --- 132		
Bromomethane	3.35	ug/L			4.00	84	65 --- 141		
Carbon disulfide	7.37	ug/L			8.00	92	61 --- 140		
Carbon tetrachloride	3.96	ug/L			4.00	99	72 --- 133		
Chlorobenzene	3.95	ug/L			4.00	99	80 --- 122		
Chloroethane	4.10	ug/L			4.00	102	71 --- 134		
Chloroform	3.71	ug/L			4.00	93	73 --- 127		
Chloromethane	3.89	ug/L			4.00	97	72 --- 128		
cis-1,2-Dichloroethene	3.81	ug/L			4.00	95	76 --- 127		

Lab Control Spike Water

Analytical Run #:	132323	Analysis Date:	11/10/2016	Prep Batch #:	Matrix:	LIQUID
CTLab #:	803821	Analysis Time:	08:12	Prep Date/Time:	Method:	SW8260C
Parent Sample #:		Analyst:	RLD	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
cis-1,3-Dichloropropene	3.52	ug/L			4.00	88	72 --- 125		
d8-Toluene	98.0	% Recovery			100	98.0	71 --- 117		
Dibromochloromethane	3.43	ug/L			4.00	86	60 --- 131		
Dibromofluoromethane	99.0	% Recovery			100	99.0	67 --- 121		
Dibromomethane	3.59	ug/L			4.00	90	76 --- 129		
Dichlorodifluoromethane	4.05	ug/L			4.00	101	64 --- 149		
Diisopropyl ether	3.68	ug/L			4.00	92	62 --- 137		
Ethylbenzene	3.91	ug/L			4.00	98	80 --- 121		
Hexachlorobutadiene	3.78	ug/L			4.00	94	71 --- 131		
Isopropylbenzene	3.87	ug/L			4.00	97	75 --- 122		
m & p-Xylene	7.73	ug/L			8.00	97	80 --- 121		
Methyl tert-butyl ether	3.59	ug/L			4.00	90	63 --- 135		
Methylene chloride	3.83	ug/L			4.00	96	38 --- 174		
n-Butylbenzene	3.87	ug/L			4.00	97	71 --- 125		
n-Propylbenzene	4.02	ug/L			4.00	100	76 --- 122		
Naphthalene	3.68	ug/L			4.00	92	64 --- 126		
o-Xylene	3.82	ug/L			4.00	96	77 --- 120		
p-Isopropyltoluene	3.96	ug/L			4.00	99	76 --- 122		
sec-Butylbenzene	3.97	ug/L			4.00	99	75 --- 122		
Styrene	3.82	ug/L			4.00	96	76 --- 121		
tert-Butylbenzene	3.97	ug/L			4.00	99	77 --- 120		
Tetrachloroethene	3.85	ug/L			4.00	96	75 --- 127		
Tetrahydrofuran	33.5	ug/L			40.0	84	60 --- 131		
Toluene	3.72	ug/L			4.00	93	80 --- 122		
trans-1,2-Dichloroethene	3.76	ug/L			4.00	94	68 --- 136		
trans-1,3-Dichloropropene	3.38	ug/L			4.00	84	65 --- 126		
Trichloroethene	3.69	ug/L			4.00	92	78 --- 126		
Trichlorofluoromethane	3.82	ug/L			4.00	96	70 --- 145		
Vinyl acetate	36.3	ug/L			40.0	91	38 --- 152		
Vinyl chloride	3.98	ug/L			4.00	100	71 --- 135		

Method Blank Water

Analytical Run #:	132323	Analysis Date:	11/10/2016	Prep Batch #:	Matrix:	LIQUID
CTLab #:	803885	Analysis Time:	09:10	Prep Date/Time:	Method:	SW8260C
Parent Sample #:		Analyst:	RLD	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	0.04	ug/L		U	0		0.04		
1,1,1-Trichloroethane	0.05	ug/L		U	0		0.05		
1,1,2,2-Tetrachloroethane	0.017	ug/L		U	0		0.017		
1,1,2-Trichloroethane	0.05	ug/L		U	0		0.05		
1,1-Dichloroethane	0.06	ug/L		U	0		0.06		
1,1-Dichloroethene	0.06	ug/L		U	0		0.06		
1,1-Dichloropropene	0.06	ug/L		U	0		0.06		
1,2 Dichloroethane-d4	105	% Recovery			100	105	68 --- 120		
1,2,3-Trichlorobenzene	0.04	ug/L		U	0		0.04		
1,2,3-Trichloropropane	0.04	ug/L		U	0		0.04		
1,2,4-Trichlorobenzene	0.04	ug/L		U	0		0.04		
1,2,4-Trimethylbenzene	0.04	ug/L		U	0		0.04		
1,2-Dibromo-3-chloropropane	0.09	ug/L		U	0		0.09		
1,2-Dibromoethane	0.07	ug/L		U	0		0.07		
1,2-Dichlorobenzene	0.04	ug/L		U	0		0.04		
1,2-Dichloroethane	0.05	ug/L		U	0		0.05		
1,2-Dichloropropane	0.07	ug/L		U	0		0.07		
1,3,5-Trimethylbenzene	0.05	ug/L		U	0		0.05		
1,3-Dichlorobenzene	0.04	ug/L		U	0		0.04		
1,3-Dichloropropane	0.04	ug/L		U	0		0.04		
1,4-Dichlorobenzene	0.04	ug/L		U	0		0.04		
2,2-Dichloropropane	0.05	ug/L		U	0		0.05		
2-Butanone	0.5	ug/L		U	0		0.5		
2-Chlorotoluene	0.03	ug/L		U	0		0.03		
2-Hexanone	0.24	ug/L		U	0		0.24		
4-Chlorotoluene	0.04	ug/L		U	0		0.04		
4-Methyl-2-pentanone	0.24	ug/L		U	0		0.24		
Acetone	0.570	ug/L			0		0.30		
Benzene	0.018	ug/L		U	0		0.018		
Bromobenzene	0.04	ug/L		U	0		0.04		
Bromochloromethane	0.030	ug/L		U	0		0.030		
Bromodichloromethane	0.016	ug/L		U	0		0.016		
Bromofluorobenzene	97.0	% Recovery			100	97.0	68 --- 120		
Bromoform	0.04	ug/L		U	0		0.04		
Bromomethane	0.08	ug/L		U	0		0.08		
Carbon disulfide	0.07	ug/L		U	0		0.07		
Carbon tetrachloride	0.05	ug/L		U	0		0.05		
Chlorobenzene	0.04	ug/L		U	0		0.04		
Chloroethane	0.07	ug/L		U	0		0.07		
Chloroform	0.03	ug/L		U	0		0.03		
Chloromethane	0.04	ug/L		U	0		0.04		
cis-1,2-Dichloroethene	0.07	ug/L		U	0		0.07		

Method Blank Water

Analytical Run #:	132323	Analysis Date:	11/10/2016	Prep Batch #:	Matrix:	LIQUID
CTLab #:	803885	Analysis Time:	09:10	Prep Date/Time:	Method:	SW8260C
Parent Sample #:		Analyst:	RLD	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
cis-1,3-Dichloropropene	0.011	ug/L		U	0		0.011		
d8-Toluene	100	% Recovery			100	100	71 --- 117		
Dibromochloromethane	0.03	ug/L		U	0		0.03		
Dibromofluoromethane	100	% Recovery			100	100	67 --- 122		
Dibromomethane	0.05	ug/L		U	0		0.05		
Dichlorodifluoromethane	0.06	ug/L		U	0		0.06		
Diisopropyl ether	0.04	ug/L		U	0		0.04		
Ethylbenzene	0.04	ug/L		U	0		0.04		
Hexachlorobutadiene	0.05	ug/L		U	0		0.05		
Isopropylbenzene	0.04	ug/L		U	0		0.04		
m & p-Xylene	0.07	ug/L		U	0		0.07		
Methyl tert-butyl ether	0.04	ug/L		U	0		0.04		
Methylene chloride	0.05	ug/L		U	0		0.05		
n-Butylbenzene	0.03	ug/L		U	0		0.03		
n-Propylbenzene	0.04	ug/L		U	0		0.04		
Naphthalene	0.03	ug/L		U	0		0.03		
o-Xylene	0.04	ug/L		U	0		0.04		
p-Isopropyltoluene	0.04	ug/L		U	0		0.04		
sec-Butylbenzene	0.05	ug/L		U	0		0.05		
Styrene	0.03	ug/L		U	0		0.03		
tert-Butylbenzene	0.04	ug/L		U	0		0.04		
Tetrachloroethene	0.05	ug/L		U	0		0.05		
Tetrahydrofuran	0.491	ug/L			0		0.4		
Toluene	0.04	ug/L		U	0		0.04		
trans-1,2-Dichloroethene	0.04	ug/L		U	0		0.04		
trans-1,3-Dichloropropene	0.019	ug/L		U	0		0.019		
Trichloroethene	0.05	ug/L		U	0		0.05		
Trichlorofluoromethane	0.09	ug/L		U	0		0.09		
Vinyl acetate	0.22	ug/L		U	0		0.22		
Vinyl chloride	0.019	ug/L		U	0		0.019		

Matrix Spike Duplicate Water

Analytical Run #:	132323	Analysis Date:	11/10/2016	Prep Batch #:	Matrix:	GROUND WATER
CTLab #:	808422	Analysis Time:	19:22	Prep Date/Time:	Method:	SW8260C
Parent Sample #:	808390	Analyst:	RLD	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	3.52	ug/L	BDL		4.00	88	71 --- 136	6	21
1,1,1-Trichloroethane	3.74	ug/L	BDL		4.00	94	77 --- 150	6	20
1,1,2,2-Tetrachloroethane	3.54	ug/L	BDL		4.00	88	68 --- 139	5	22
1,1,2-Trichloroethane	3.40	ug/L	BDL		4.00	85	70 --- 139	2	25
1,1-Dichloroethane	3.52	ug/L	BDL		4.00	88	65 --- 149	4	25
1,1-Dichloroethene	3.76	ug/L	BDL		4.00	94	56 --- 164	4	24
1,1-Dichloropropene	3.74	ug/L	BDL		4.00	94	65 --- 146	3	21
1,2 Dichloroethane-d4	100	% Recovery			100	100	65 --- 128		7
1,2,3-Trichlorobenzene	3.91	ug/L	BDL		4.00	98	62 --- 135	8	31
1,2,3-Trichloropropane	2.78	ug/L	BDL		4.00	70	66 --- 145	1	26
1,2,4-Trichlorobenzene	3.98	ug/L	BDL		4.00	100	61 --- 132	8	29
1,2,4-Trimethylbenzene	3.83	ug/L	BDL		4.00	96	1 --- 154	6	36
1,2-Dibromo-3-chloropropane	3.01	ug/L	BDL		4.00	75	49 --- 144	0	34
1,2-Dibromoethane	3.47	ug/L	BDL		4.00	87	76 --- 132	6	22
1,2-Dichlorobenzene	3.91	ug/L	BDL		4.00	98	78 --- 128	6	23
1,2-Dichloroethane	3.47	ug/L	BDL		4.00	87	70 --- 147	7	21
1,2-Dichloropropane	3.54	ug/L	BDL		4.00	88	72 --- 138	5	19
1,3,5-Trimethylbenzene	3.90	ug/L	BDL		4.00	98	1 --- 151	5	34
1,3-Dichlorobenzene	3.93	ug/L	BDL		4.00	98	78 --- 127	5	22
1,3-Dichloropropane	3.38	ug/L	BDL		4.00	84	73 --- 136	4	23
1,4-Dichlorobenzene	3.92	ug/L	BDL		4.00	98	78 --- 127	4	22
2,2-Dichloropropane	3.69	ug/L	BDL		4.00	92	50 --- 165	3	21
2-Butanone	34.3	ug/L	BDL		40.0	86	45 --- 160	8	29
2-Chlorotoluene	3.84	ug/L	BDL		4.00	96	74 --- 130	2	20
2-Hexanone	34.4	ug/L	BDL		40.0	86	55 --- 143	6	28
4-Chlorotoluene	3.83	ug/L	BDL		4.00	96	57 --- 131	4	22
4-Methyl-2-pentanone	33.2	ug/L	BDL		40.0	83	58 --- 146	5	29
Acetone	26.8	ug/L	BDL		40.0	67	27 --- 172	11	39
Benzene	3.67	ug/L	0.025		4.00	91	81 --- 134	5	17
Bromobenzene	3.82	ug/L	BDL		4.00	96	80 --- 127	4	20
Bromochloromethane	3.41	ug/L	BDL		4.00	85	73 --- 143	4	22
Bromodichloromethane	3.23	ug/L	BDL		4.00	81	64 --- 139	5	20
Bromofluorobenzene	99.0	% Recovery			100	99.0	67 --- 120		7
Bromoform	2.69	ug/L	BDL		4.00	67	49 --- 125	1	28
Bromomethane	2.09	ug/L	BDL		4.00	52	59 --- 167	7	34
Carbon disulfide	7.57	ug/L	BDL		8.00	95	12 --- 140	6	31
Carbon tetrachloride	3.82	ug/L	BDL		4.00	96	74 --- 153	5	20
Chlorobenzene	3.79	ug/L	BDL		4.00	95	82 --- 130	5	21
Chloroethane	4.37	ug/L	BDL		4.00	109	64 --- 165	4	26
Chloroform	3.49	ug/L	BDL		4.00	87	73 --- 138	6	18
Chloromethane	3.76	ug/L	BDL		4.00	94	62 --- 157	5	21
cis-1,2-Dichloroethene	8.95	ug/L	5.3		4.00	91	75 --- 152	3	21

Matrix Spike Duplicate Water

Analytical Run #:	132323	Analysis Date:	11/10/2016	Prep Batch #:	Matrix:	GROUND WATER
CTLab #:	808422	Analysis Time:	19:22	Prep Date/Time:	Method:	SW8260C
Parent Sample #:	808390	Analyst:	RLD	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
cis-1,3-Dichloropropene	3.20	ug/L	BDL		4.00	80	61 --- 129	2	21
d8-Toluene	98.0	% Recovery			100	98.0	60 --- 119		7
Dibromochloromethane	3.20	ug/L	BDL		4.00	80	56 --- 130	5	23
Dibromofluoromethane	101	% Recovery			100	101	65 --- 128		7
Dibromomethane	3.27	ug/L	BDL		4.00	82	71 --- 142	4	21
Dichlorodifluoromethane	4.24	ug/L	BDL		4.00	106	62 --- 196	5	22
Diisopropyl ether	3.56	ug/L	BDL		4.00	89	46 --- 161	6	27
Ethylbenzene	3.83	ug/L	BDL		4.00	96	52 --- 139	4	24
Hexachlorobutadiene	4.14	ug/L	BDL		4.00	104	66 --- 147	6	30
Isopropylbenzene	3.87	ug/L	BDL		4.00	97	50 --- 135	5	24
m & p-Xylene	7.65	ug/L	BDL		8.00	96	1 --- 156	5	28
Methyl tert-butyl ether	4.07	ug/L	0.65		4.00	86	46 --- 161	8	33
Methylene chloride	3.63	ug/L	BDL		4.00	91	10 --- 181	7	36
n-Butylbenzene	4.06	ug/L	BDL		4.00	102	46 --- 144	5	24
n-Propylbenzene	4.02	ug/L	BDL		4.00	100	51 --- 139	5	23
Naphthalene	3.58	ug/L	BDL		4.00	90	45 --- 135	11	31
o-Xylene	3.73	ug/L	BDL		4.00	93	11 --- 148	4	26
p-Isopropyltoluene	4.04	ug/L	BDL		4.00	101	18 --- 148	5	27
sec-Butylbenzene	4.05	ug/L	BDL		4.00	101	57 --- 138	6	23
Styrene	3.64	ug/L	BDL		4.00	91	1 --- 159	5	40
tert-Butylbenzene	3.95	ug/L	BDL		4.00	99	74 --- 132	4	22
Tetrachloroethene	3.86	ug/L	BDL		4.00	96	79 --- 144	5	21
Tetrahydrofuran	31.3	ug/L	BDL		40.0	78	51 --- 139	7	28
Toluene	3.71	ug/L	0.13		4.00	90	56 --- 141	4	19
trans-1,2-Dichloroethene	3.92	ug/L	0.22		4.00	92	53 --- 161	7	28
trans-1,3-Dichloropropene	3.02	ug/L	BDL		4.00	76	57 --- 124	3	21
Trichloroethene	3.67	ug/L	0.066		4.00	90	74 --- 138	3	19
Trichlorofluoromethane	4.08	ug/L	BDL		4.00	102	83 --- 174	10	23
Vinyl acetate	33.6	ug/L	BDL		40.0	84	0 --- 198	8	25
Vinyl chloride	4.01	ug/L	BDL		4.00	100	65 --- 168	4	21

Matrix Spike Water

Analytical Run #:	132323	Analysis Date:	11/10/2016	Prep Batch #:	Matrix:	GROUND WATER
CTLab #:	808390	Analysis Time:	18:52	Prep Date/Time:	Method:	SW8260C
Parent Sample #:	800068	Analyst:	RLD	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	3.32	ug/L	BDL		4.00	83	71 --- 136		21
1,1,1-Trichloroethane	3.54	ug/L	BDL		4.00	88	77 --- 150		20
1,1,2,2-Tetrachloroethane	3.36	ug/L	BDL		4.00	84	68 --- 139		22
1,1,2-Trichloroethane	3.33	ug/L	BDL		4.00	83	70 --- 139		25
1,1-Dichloroethane	3.40	ug/L	BDL		4.00	85	65 --- 149		25
1,1-Dichloroethene	3.62	ug/L	BDL		4.00	90	56 --- 164		24
1,1-Dichloropropene	3.64	ug/L	BDL		4.00	91	65 --- 146		21
1,2-Dichloroethane-d4	95.0	% Recovery			100	95.0	65 --- 128		7
1,2,3-Trichlorobenzene	3.62	ug/L	BDL		4.00	90	62 --- 135		31
1,2,3-Trichloropropane	2.75	ug/L	BDL		4.00	69	66 --- 145		26
1,2,4-Trichlorobenzene	3.67	ug/L	BDL		4.00	92	61 --- 132		29
1,2,4-Trimethylbenzene	3.60	ug/L	BDL		4.00	90	1 --- 154		36
1,2-Dibromo-3-chloropropane	3.00	ug/L	BDL		4.00	75	49 --- 144		34
1,2-Dibromoethane	3.27	ug/L	BDL		4.00	82	76 --- 132		22
1,2-Dichlorobenzene	3.67	ug/L	BDL		4.00	92	78 --- 128		23
1,2-Dichloroethane	3.25	ug/L	BDL		4.00	81	70 --- 147		21
1,2-Dichloropropane	3.38	ug/L	BDL		4.00	84	72 --- 138		19
1,3,5-Trimethylbenzene	3.72	ug/L	BDL		4.00	93	1 --- 151		34
1,3-Dichlorobenzene	3.74	ug/L	BDL		4.00	94	78 --- 127		22
1,3-Dichloropropane	3.24	ug/L	BDL		4.00	81	73 --- 136		23
1,4-Dichlorobenzene	3.77	ug/L	BDL		4.00	94	78 --- 127		22
2,2-Dichloropropane	3.57	ug/L	BDL		4.00	89	50 --- 165		21
2-Butanone	31.5	ug/L	BDL		40.0	79	45 --- 160		29
2-Chlorotoluene	3.75	ug/L	BDL		4.00	94	74 --- 130		20
2-Hexanone	32.5	ug/L	BDL		40.0	81	55 --- 143		28
4-Chlorotoluene	3.69	ug/L	BDL		4.00	92	57 --- 131		22
4-Methyl-2-pentanone	31.5	ug/L	BDL		40.0	79	58 --- 146		29
Acetone	24.1	ug/L	BDL		40.0	60	27 --- 172		39
Benzene	3.50	ug/L	0.025		4.00	87	81 --- 134		17
Bromobenzene	3.66	ug/L	BDL		4.00	92	80 --- 127		20
Bromochloromethane	3.26	ug/L	BDL		4.00	82	73 --- 143		22
Bromodichloromethane	3.06	ug/L	BDL		4.00	76	64 --- 139		20
Bromofluorobenzene	97.0	% Recovery			100	97.0	67 --- 120		7
Bromoform	2.66	ug/L	BDL		4.00	66	49 --- 125		28
Bromomethane	1.94	ug/L	BDL		4.00	48	59 --- 167		34
Carbon disulfide	7.15	ug/L	BDL		8.00	89	12 --- 140		31
Carbon tetrachloride	3.62	ug/L	BDL		4.00	90	74 --- 153		20
Chlorobenzene	3.60	ug/L	BDL		4.00	90	82 --- 130		21
Chloroethane	4.21	ug/L	BDL		4.00	105	64 --- 165		26
Chloroform	3.30	ug/L	BDL		4.00	82	73 --- 138		18
Chloromethane	3.59	ug/L	BDL		4.00	90	62 --- 157		21
cis-1,2-Dichloroethene	8.68	ug/L	5.3		4.00	84	75 --- 152		21

Matrix Spike Water

Analytical Run #:	132323	Analysis Date:	11/10/2016	Prep Batch #:	Matrix:	GROUND WATER
CTLab #:	808390	Analysis Time:	18:52	Prep Date/Time:	Method:	SW8260C
Parent Sample #:	800068	Analyst:	RLD	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
cis-1,3-Dichloropropene	3.13	ug/L	BDL		4.00	78	61 --- 129		21
d8-Toluene	98.0	% Recovery			100	98.0	60 --- 119		7
Dibromochloromethane	3.03	ug/L	BDL		4.00	76	56 --- 130		23
Dibromofluoromethane	100	% Recovery			100	100	65 --- 128		7
Dibromomethane	3.15	ug/L	BDL		4.00	79	71 --- 142		21
Dichlorodifluoromethane	4.04	ug/L	BDL		4.00	101	62 --- 196		22
Diisopropyl ether	3.35	ug/L	BDL		4.00	84	46 --- 161		27
Ethylbenzene	3.69	ug/L	BDL		4.00	92	52 --- 139		24
Hexachlorobutadiene	3.90	ug/L	BDL		4.00	98	66 --- 147		30
Isopropylbenzene	3.67	ug/L	BDL		4.00	92	50 --- 135		24
m & p-Xylene	7.27	ug/L	BDL		8.00	91	1 --- 156		28
Methyl tert-butyl ether	3.76	ug/L	0.65		4.00	78	46 --- 161		33
Methylene chloride	3.37	ug/L	BDL		4.00	84	10 --- 181		36
n-Butylbenzene	3.85	ug/L	BDL		4.00	96	46 --- 144		24
n-Propylbenzene	3.83	ug/L	BDL		4.00	96	51 --- 139		23
Naphthalene	3.22	ug/L	BDL		4.00	80	45 --- 135		31
o-Xylene	3.58	ug/L	BDL		4.00	90	11 --- 148		26
p-Isopropyltoluene	3.84	ug/L	BDL		4.00	96	18 --- 148		27
sec-Butylbenzene	3.83	ug/L	BDL		4.00	96	57 --- 138		23
Styrene	3.44	ug/L	BDL		4.00	86	1 --- 159		40
tert-Butylbenzene	3.77	ug/L	BDL		4.00	94	74 --- 132		22
Tetrachloroethene	3.69	ug/L	BDL		4.00	92	79 --- 144		21
Tetrahydrofuran	29.0	ug/L	BDL		40.0	72	51 --- 139		28
Toluene	3.57	ug/L	0.13		4.00	86	56 --- 141		19
trans-1,2-Dichloroethene	3.65	ug/L	0.22		4.00	86	53 --- 161		28
trans-1,3-Dichloropropene	2.93	ug/L	BDL		4.00	73	57 --- 124		21
Trichloroethene	3.55	ug/L	0.066		4.00	87	74 --- 138		19
Trichlorofluoromethane	3.70	ug/L	BDL		4.00	92	83 --- 174		23
Vinyl acetate	31.1	ug/L	BDL		40.0	78	0 --- 198		25
Vinyl chloride	3.83	ug/L	BDL		4.00	96	65 --- 168		21

Lab Control Spike Water

Analytical Run #:	132540	Analysis Date:	11/10/2016	Prep Batch #:	60107	Matrix:	LIQUID
CTLab #:	803849	Analysis Time:	15:39	Prep Date/Time:	11/10/2016 09:00	Method:	RSK175
Parent Sample #:		Analyst:	agk	Prep Analyst:	AGK		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Acetylene	2.57	ug/L			3.07	84	70 --- 130		20
Ethane	4.68	ug/L			4.78	98	70 --- 130		20
Ethene	6.70	ug/L			6.79	99	65 --- 124		20
Methane	2.34	ug/L			2.30	102	70 --- 130		20

TETRA TECH

SDG #: 0

Folder #: 123409

Project Name: OCONOMOWOC
ELECTROPLATING
Project Number: 117-7413001.01

Method Blank Water

Analytical Run #:	132540	Analysis Date:	11/10/2016	Prep Batch #:	60107	Matrix:	LIQUID
CTLab #:	803848	Analysis Time:	16:09	Prep Date/Time:	11/10/2016 09:00	Method:	RSK175
Parent Sample #:		Analyst:	agk	Prep Analyst:	AGK		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Acetylene	0.23	ug/L		U	0		0.23		
Ethane	0.4	ug/L		U	0		0.4		
Ethene	0.5	ug/L		U	0		0.5		
Methane	0.4	ug/L		U	0		0.4		

TETRA TECH

SDG #: 0

Folder #: 123409

Project Name: OCONOMOWOC

ELECTROPLATING

Project Number: 117-7413001.01

Lab Control Spike Water

Analytical Run #:	133155	Analysis Date:	11/09/2016	Prep Batch #:		Matrix:	LIQUID
CTLab #:	812411	Analysis Time:	16:46	Prep Date/Time:		Method:	SW8260C
Parent Sample #:		Analyst:	RLD	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
1,4-Dioxane	221	ug/L			200	110	70 --- 130		

TETRA TECH

SDG #: 0

Folder #: 123409

Project Name: OCONOMOWOC
ELECTROPLATING
Project Number: 117-7413001.01

Method Blank Water

Analytical Run #:	133155	Analysis Date:	11/09/2016	Prep Batch #:	Matrix:	LIQUID
CTLab #:	812421	Analysis Time:	18:13	Prep Date/Time:	Method:	SW8260C
Parent Sample #:		Analyst:	RLD	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
1,4-Dioxane	7	ug/L		U	0			7	

TETRA TECH

SDG #: 0

Folder #: 123409

Project Name: OCONOMOWOC

ELECTROPLATING

Project Number: 117-7413001.01

Lab Control Spike Water

Analytical Run #:	133156	Analysis Date:	11/10/2016	Prep Batch #:		Matrix:	LIQUID
CTLab #:	812412	Analysis Time:	08:12	Prep Date/Time:		Method:	SW8260C
Parent Sample #:		Analyst:	RLD	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
1,4-Dioxane	218	ug/L			200	109	70 --- 130		

TETRA TECH

SDG #: 0

Folder #: 123409

Project Name: OCONOMOWOC

ELECTROPLATING

Project Number: 117-7413001.01

Method Blank Water

Analytical Run #:	133156	Analysis Date:	11/10/2016	Prep Batch #:		Matrix:	LIQUID
CTLab #:	812422	Analysis Time:	09:10	Prep Date/Time:		Method:	SW8260C
Parent Sample #:		Analyst:	RLD	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
1,4-Dioxane	7	ug/L		U	0			7	

TETRA TECH

SDG #: 0

Folder #: 123409

Project Name: OCONOMOWOC
ELECTROPLATING
Project Number: 117-7413001.01

Matrix Spike Duplicate Water

Analytical Run #:	133156	Analysis Date:	11/10/2016	Prep Batch #:	Matrix:	GROUND WATER
CTLab #:	812426	Analysis Time:	19:22	Prep Date/Time:	Method:	SW8260C
Parent Sample #:	812425	Analyst:	RLD	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
1,4-Dioxane	188	ug/L	BDL		200	94	70 --- 130	17	20

TETRA TECH

SDG #: 0

Folder #: 123409

Project Name: OCONOMOWOC

ELECTROPLATING

Project Number: 117-7413001.01

Matrix Spike Water

Analytical Run #:	133156	Analysis Date:	11/10/2016	Prep Batch #:	Matrix:	GROUND WATER
CTLab #:	812425	Analysis Time:	18:52	Prep Date/Time:	Method:	SW8260C
Parent Sample #:	800068	Analyst:	RLD	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
1,4-Dioxane	158	ug/L	BDL		200	79	70 --- 130		20

Sample Condition Report

Folder #: 123409	Print Date / Time: 11/03/2016 13:06
Client: TETRA TECH	Received Date / Time / By: 11/03/2016 12:24 DJL
Project Name: OCONOMOWOC ELECTROPLATING	Log-In Date / Time / By: 11/03/2016 13:05 BNA
Project Phase:	Project #: 117-7413001.01 PM: BMS
Coolers: 5906	Temperature: 1.1 C On Ice: Y
Custody Seals Present : Y	COC Present?: Y Complete? Y
Seal Intact? Y	Numbers: N/A
Ship Method: FEDEX	Tracking Number: 020177624138526
Adequate Packaging: Y	Temp Blank Enclosed? Y

Notes: THE SAMPLES WERE RECEIVED IN GOOD CONDITION ON ICE.

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
800068 PW-09	VOA HCL	1	/	VOC
	VOA HCL	1	/	VOC
	VOA HCL	1	/	VOC
	Total # of Containers of Type (VOA HCL) = 3			

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
800069 MW-4S	UNPRES PL	1	/	ALK,Anions
	Total # of Containers of Type (UNPRES PL) = 1			

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
800069 MW-4S	VOA HCL	1	/	GAS
	VOA HCL	1	/	GAS
	VOA HCL	1	/	GAS
	Total # of Containers of Type (VOA HCL) = 3			

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
800069 MW-4S	HNO3	1	Y /	ICP
	Total # of Containers of Type (HNO3) = 1			

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
800069 MW-4S	H2SO4 PL	1	Y /	TOC
	Total # of Containers of Type (H2SO4 PL) = 1			

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
800069 MW-4S	VOA HCL	1	/	VOC
	VOA HCL	1	/	VOC
	VOA HCL	1	/	VOC
	Total # of Containers of Type (VOA HCL) = 3			

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
800070 MW-4S	HNO3	1	Y /	ICP
	Total # of Containers of Type		(HNO3) = 1	

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
800071 MW-103S	UNPRES PL	1	/	ALK,Anions
	Total # of Containers of Type		(UNPRES PL) = 1	

800071 MW-103S	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	Total # of Containers of Type		(VOA HCL) = 6	

800071 MW-103S	HNO3	1	Y /	ICP
	Total # of Containers of Type		(HNO3) = 1	

800071 MW-103S	H2SO4 PL	1	Y /	TOC
	Total # of Containers of Type		(H2SO4 PL) = 1	

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
800072 MW-103S	HNO3	1	Y /	ICP
	Total # of Containers of Type		(HNO3) = 1	

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
800073 MW-103D	UNPRES PL	1	/	ALK,Anions
	Total # of Containers of Type		(UNPRES PL) = 1	

800073 MW-103D	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	Total # of Containers of Type		(VOA HCL) = 6	

800073 MW-103D	HNO3	1	Y /	ICP
	Total # of Containers of Type		(HNO3) = 1	

800073 MW-103D
 H2SO4 PL 1 Y /
Total # of Containers of Type (H2SO4 PL) = 1 TOC

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
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800074 MW-103D
 HNO3 1 Y /
Total # of Containers of Type (HNO3) = 1 ICP

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
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800075 MW-103D DUP
 UNPRES PL 1 /
Total # of Containers of Type (UNPRES PL) = 1 ALK,Anions

800075 MW-103D DUP
 VOA HCL 1 / GAS,VOC
 VOA HCL 1 / GAS,VOC
 VOA HCL 1 / GAS,VOC
 VOA HCL 1 / GAS,VOC
 VOA HCL 1 / GAS,VOC
 VOA HCL 1 / GAS,VOC
Total # of Containers of Type (VOA HCL) = 6

800075 MW-103D DUP
 HNO3 1 Y /
Total # of Containers of Type (HNO3) = 1 ICP

800075 MW-103D DUP
 H2SO4 PL 1 Y /
Total # of Containers of Type (H2SO4 PL) = 1 TOC

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
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800076 MW-103D DUP
 HNO3 1 Y /
Total # of Containers of Type (HNO3) = 1 ICP

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
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800077 OW-6
 UNPRES PL 1 /
Total # of Containers of Type (UNPRES PL) = 1 ALK,Anions

800077 OW-6
 VOA HCL 1 / GAS,VOC
 VOA HCL 1 / GAS,VOC
 VOA HCL 1 / GAS,VOC
 VOA HCL 1 / GAS,VOC
 VOA HCL 1 / GAS,VOC
 VOA HCL 1 / GAS,VOC
Total # of Containers of Type (VOA HCL) = 6

800077 OW-6
 HNO3 1 Y / ICP
Total # of Containers of Type (HNO3) = 1

800077 OW-6
 H2SO4 PL 1 Y / TOC
Total # of Containers of Type (H2SO4 PL) = 1

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
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800078 OW-6
 HNO3 1 Y / ICP
Total # of Containers of Type (HNO3) = 1

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
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800079 MW-2D
 UNPRES PL 1 / ALK,Anions
Total # of Containers of Type (UNPRES PL) = 1

800079 MW-2D
 VOA HCL 1 / GAS,VOC
 VOA HCL 1 / GAS,VOC
 VOA HCL 1 / GAS,VOC
 VOA HCL 1 / GAS,VOC
 VOA HCL 1 / GAS,VOC
 VOA HCL 1 / GAS,VOC
Total # of Containers of Type (VOA HCL) = 6

800079 MW-2D
 HNO3 1 Y / ICP
Total # of Containers of Type (HNO3) = 1

800079 MW-2D
 H2SO4 PL 1 Y / TOC
Total # of Containers of Type (H2SO4 PL) = 1

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
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800080 MW-2D
 HNO3 1 Y / ICP
Total # of Containers of Type (HNO3) = 1

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
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800081 MW-3D
 UNPRES PL 1 / ALK,Anions
Total # of Containers of Type (UNPRES PL) = 1

800081 MW-3D

VOA HCL	1	/	GAS,VOC
VOA HCL	1	/	GAS,VOC
VOA HCL	1	/	GAS,VOC
VOA HCL	1	/	GAS,VOC
VOA HCL	1	/	GAS,VOC
VOA HCL	1	/	GAS,VOC
Total # of Containers of Type		(VOA HCL) = 6	

800081	MW-3D	HNO3	1	Y	/	ICP
		Total # of Containers of Type		(HNO3) = 1		

800081	MW-3D	H2SO4 PL	1	Y	/	TOC
		Total # of Containers of Type		(H2SO4 PL) = 1		

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests	
800082	MW-3D	HNO3	1	Y /	ICP
		Total # of Containers of Type		(HNO3) = 1	

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests	
800083	PW-11	VOA HCL	1	/	VOC
		VOA HCL	1	/	VOC
		VOA HCL	1	/	VOC
		Total # of Containers of Type		(VOA HCL) = 3	

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests	
800084	PW-03	VOA HCL	1	/	VOC
		VOA HCL	1	/	VOC
		VOA HCL	1	/	VOC
		Total # of Containers of Type		(VOA HCL) = 3	

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests	
800085	TB-2	Trip Blank	1	/	VOC
		Trip Blank	1	/	VOC
		Total # of Containers of Type		(Trip Blank) = 2	

<u>Condition Code</u>	<u>Condition Description</u>
1	Sample Received OK

Company: Tetra Tech
 Project Contact: MARK MANTNEY
 Telephone: 262 792 1222
 Project Name: OCONOMOWOC Electrozplating
 Project #: 117-7413001.01
 Location: OCONOMOWOC WI
 Sampled By: ANNY KAWALEWSKI

CT LABORATORIES
 Lange Court, Baraboo, WI 53913
 78-356-2760 Fax 608-356-2766
 www.ctlaboratories.com
 Folder #: 123409
 Company: TETRA TECH
 Project: OCONOMOWOC ELECTROZPLATING
 Logged By: ANNY KAWALEWSKI
 SDWA NPDES
 Other

Report To: EMAIL: mark.mantney@tetratech.com
 Company: Tetra Tech
 Address: 175 N Corporate DR #100 Brookfield WI 53045
 Invoice To: *
 EMAIL:
 Company:
 Address:

*Party listed is responsible for payment of invoice as per CT Laboratories' terms and conditions

Client Special Instructions
 Field Filtered: ICP Dissolved

Filtered? Y/N	ANALYSES REQUESTED										Total # Containers	Designated MS/MSD	
	VOC 8260	low level	PSK-TTS: meth, ethyl, xylene, acetone	alk- chlord, sulfuric	TDC	ICP Dissolved	ICP Total						

Turnaround Time
 Normal RUSH*
 Date Needed: _____
 Rush analysis requires prior CT Laboratories' approval
 Surcharges:
 24 hr 200%
 2-3 days 100%
 4-9 days 50%

Matrix:
 GW - groundwater SW - surface water WW - wastewater DW - drinking water
 S - soil/sediment SL - sludge A - air M - misc/waste

Collection 16		Matrix	Grab/Comp	Sample #	Sample ID Description	Filtered?	Fill in Spaces with Bottles per Test										Total # Containers	Designated MS/MSD	CT Lab ID # <i>Lab use only</i>
Date	Time						VOC 8260	low level	PSK-TTS: meth, ethyl, xylene, acetone	alk- chlord, sulfuric	TDC	ICP Dissolved	ICP Total						
11-2	935	GW	grab	1	PW-09	N	3									3	800068		
	1040				MW-4s	Y	3	3	1	1	1					10	800069/800070		
	1140				MW-103s	Y	3	3	1	1	1					10	800071/800072		
	1215				MW-103D	Y	3	3	1	1	1					10	800073/800074		
	1220				MW-103D DUP	Y	3	3	1	1	1					10	800075/800076		
	1320				OW-6	Y	3	3	1	1	1					10	800077/800078		
	1410				MW-2D	Y	3	3	1	1	1					10	800079/800080		
	1520				MW-3D	Y	3	3	1	1	1					10	800081/800082		
	1645				PW-11	N	3									3	800083		
	1725				PW-03	N	3									3	800084		
		DI			TB-2	N	2									2	800085		

Relinquished By: ANNY KAWALEWSKI
 Received by:

Date/Time: 11-2-14 1900
 Date/Time:

Received By: [Signature]
 Received for Laboratory by: [Signature]

Date/Time: 11-3-16 1305
 Date/Time: 11-3-16 12:29

Lab Use Only
 Ice Present Yes No
 Temp 1.1 IR Gun 16
 Cooler # 5906

CT Laboratories Terms and Conditions

Where a purchaser (Client) places an order for laboratory, consulting or sampling services from CT Laboratories (CTL), CTL shall provide the ordered services pursuant to these Terms and Conditions, and the related Quotation, or as agreed in a negotiated contract. In the absence of a written agreement to the contrary, the Order constitutes an acceptance by the Client of CTL's offer to do business under these Terms and Conditions, and an agreement to be bound by these Terms and Conditions. No contrary or additional terms and conditions expressed in a Client's document shall be deemed to become a part of the contract created upon acceptance of these Terms and Conditions, unless accepted by CTL in advance of the start of the project and in writing.

1. ORDERS AND RECEIPT OF SAMPLES (Sample Acceptance Policy)

1.1 The Client may place the Order (i.e., specify a Scope of Work) either by submitting a purchase order to CTL in writing, by telephone (confirmed in writing) or by negotiated contract. Whichever option the Client selects for placing the Order, the Order shall not be valid unless it contains sufficient specification to enable CTL to carry out the Client's requirements. It is the policy of CT Laboratories that samples not meeting the acceptance criteria, outlined in the NELAC standards and Section 5.8.3.2 of the DOD QSM, will not be accepted by the laboratory or will be qualified on the final report. All samples submitted to the laboratory must: (1) be accompanied by proper, full and complete documentation, including sample identification, location, date and time of collection, the collector's name, type of preservation (if any), type of sample, any special comments concerning the sample and any additional pertinent fields on the chain-of-custody. In the absence of any of the required information, the laboratory will attempt to contact the client to obtain the information; if unable to obtain the necessary information, the final report will be qualified. (2) be labeled appropriately with a unique sample identification written with indelible ink on water resistant labels. If the laboratory cannot determine the identity of a sample, it will be rejected and the client will be contacted for further instructions or resampling. (3) be in an appropriate sample container. If the container is inappropriate, the client will be contacted for further instructions or resampling. If analysis is possible, the final report will be qualified. CT Laboratories can provide a sampling guide containing approved containers and preservations for analytical methods requested. (4) adhere to specified holding times. If samples are received with less than 1/2 the holding time remaining for the requested test, CT Laboratories will make its best effort to analyze the samples and notify the client. If holding times are exceeded, the final report will be qualified. (5) contain adequate sample volume to perform the necessary testing. If sufficient volume is not present, the sample will be rejected and the client will be contacted for further instructions or resampling. If samples show signs of damage, contamination or inadequate preservation, the client will be notified. If analysis can be performed, the final report will be qualified. If not, the samples will be rejected and the client notified for further instructions or resampling.

1.2 CT Laboratories must be supplied with complete written disclosure of the known or suspected presence of any hazardous substances, as defined by applicable federal or state law. Where any samples which were not accompanied by the required disclosure, cause interruptions in the lab's ability to process work due to contamination of instruments or work areas, the Client will be responsible for the costs of clean up and recovery.

1.3 Prior to Sample Acceptance, the entire risk of loss or damage to samples remains with the Client. In no event will CTL have any responsibility or liability for the action or inaction of any carrier shipping or delivering any sample to or from CTL's premises. Client is responsible to assure that any sample containing any hazardous substance which is to be delivered to CTL's premises will be packaged, labeled, transported and delivered properly and in accordance with applicable laws.

2. PAYMENT TERMS

2.1 Services performed by CTL will be in accordance with prices quoted and later confirmed in writing or as stated in the Price Schedule. Invoices may be submitted to Client upon completion of any sample delivery group. Payment in advance is required for all Clients except those whose credit has been established with CTL. For Clients with approved credit, payment terms are net 30 days from the date of invoice by CTL. All overdue payments are subject to an additional interest and service charge of one and one-half percent (1.5%) (or the maximum rate permissible by law, whichever is lesser) per month or portion thereof from the due date until the date of payment. All fees are charged or billed directly to the Client. The billing of a third party will not be accepted without a statement, signed by the third party that acknowledges and accepts payment responsibility. CTL may suspend work and withhold delivery of data under this order at any time in the event Client fails to make timely payment of its invoices. Client shall be responsible for all costs and expenses of collection including reasonable attorney's fees. CTL reserves the right to refuse to proceed with work at any time based upon an unfavorable Client credit report.

3. CHANGE ORDERS, TERMINATION

3.1 Changes to the Scope of Work, price, or result delivery date may be initiated by CTL after Sample Acceptance due to any condition which conflicts with analytical, QA or other protocols warranted in these Terms and Conditions. CTL will not proceed with such changes until an agreement with the Client is reached on the amount of any cost, schedule change or technical change to the Scope of Work, and such agreement is documented in writing.

3.2 Changes to the Scope of Work, including but not limited to increasing or decreasing the work, changing test and analysis specification or acceleration in the performance of the work may be initiated by the Client after sample acceptance. Such a change will be documented in writing and may result in a change in cost and turnaround time commitment. CTL's acceptance of such changes is contingent upon technical feasibility and operational capacity.

3.3 Suspension or termination of all or any part of the work may be initiated by the Client. CTL will be compensated consistent with Section 2 of these Terms and Conditions. CTL will complete all work in progress and be paid in full for all work completed.

4. WARRANTIES AND LIABILITY

4.1 Where applicable, CTL will use analytical methodologies which are in substantial conformity with published test methods. CTL has implemented these methods in its Laboratory Quality Manuals and referenced Standard Operating Procedures and where the nature or composition of the sample requires it, CTL reserves the right to deviate from these methodologies as necessary or appropriate, based on the reasonable judgment of CTL, which deviations, if any, will be made on a basis consistent with recognized standards of the industry and/or CTL's Laboratory Quality Manuals. Client may request that CTL perform according to a mutually agreed Quality Assurance Project Plan (QAPP). In the event that samples arrive prior to agreement on a QAPP, CTL will proceed with analyses under its standard Quality Manuals then in effect, and CTL will not be responsible for any resampling or other charges if work must be repeated to comply with a subsequently finalized QAPP.

4.2 CTL shall start preparation and/or analysis within holding times provided that Sample Acceptance occurs within 48 hours of sampling or 1/2 of the holding time for the test, whichever is less. Where resolution of inconsistencies leading to Sample Acceptance does not occur within this period, CTL will use its best efforts to meet holding times and will proceed with the work provided that, in CTL's judgment, the chain-of-custody or definition of the Scope of Work provide sufficient guidance. Reanalysis of samples to comply with CTL's Quality Manuals will be deemed to have met holding times provided the initial analysis was performed within the applicable holding time. Where reanalysis demonstrates that sample matrix interference is the cause of failure to meet any Quality Manual requirements, the warranty will be deemed to have been met.

4.3 CTL warrants that it possesses and maintains all licenses and certifications which are required to perform services under these Terms and Conditions provided that such requirements are specified in writing to CTL prior to Sample Acceptance. CTL will notify the Client in writing of any decertification or revocation of any license, or notice of either, which affects work in progress.

4.4 The warranty obligations set forth in Sections 4.1, 4.2 and 4.3 are the sole and exclusive warranties given by CTL in connection with any services performed by CTL or any Results generated from such services, and CTL gives and makes NO OTHER REPRESENTATION OR WARRANTY OF ANY KIND, EXPRESS OR IMPLIED. No representative of CTL is authorized to give or make any other representation or warranty or modify this warranty in any way.

4.5 Client's sole and exclusive remedy for the breach of warranty in connection with any services performed by CTL, will be limited to repeating any services performed, contingent on the Client's providing, at the request of CTL and at the Client's expense, additional sample(s) if necessary. Any reanalysis requested by the Client generating Results consistent with the original Results will be at the Client's expense. If resampling is necessary, CTL's liability for resampling costs will be limited to actual cost or one hundred or one hundred fifty dollars (\$150) per sample, whichever is less.

4.6 CTL's liability for any and all causes of action arising hereunder, whether based in contract, tort, warranty, negligence or otherwise, shall be limited to the lesser amount of compensation for the services performed or \$100,000. All claims, including those for negligence, shall be deemed waived unless suit thereon is filed within one year after CTL's completion of the services. Under no circumstances, whether arising in contract, tort (including negligence), or otherwise, shall CTL be responsible for loss of use, loss of profits, or for any special, indirect, incidental or consequential damages occasioned by the services performed or by application or use of the reports prepared.

4.7 In no event shall CTL have any responsibility or liability to the Client for any failure or delay in performance by CTL which results, directly or indirectly, in whole or in part, from any cause or circumstance beyond the reasonable control of CTL. Such causes and circumstances shall include, but not be limited to, acts of God, acts of Client, acts or orders of any governmental authority, strikes or other labor disputes, natural disasters, accidents, wars, civil disturbances, equipment breakdown, matrix interference or unknown highly contaminated samples that impact instrument operation, unavailability of supplies from usual suppliers, difficulties or delays in transportation, mail or delivery services, or any other cause beyond CTL's reasonable control.

5. RESULTS, WORK PRODUCT

5.1 Data or information provided to CTL or generated by services performed under this agreement shall only become the property of the Client upon receipt in full by CTL of payment for the whole Order. Ownership of any analytical method, QA/QC protocols, software programs or equipment developed by CTL for performance of work will be retained by CTL, and Client shall not disclose such information to any third party.

5.2 Data and sample materials provided by Client or at Client's request, and the result obtained by CTL shall be held in confidence (unless such information is generally available to the public or is in the public domain or Client has failed to pay CTL for all services rendered or is otherwise in breach of these Terms and Conditions), subject to any disclosure required by law or legal process.

5.3 Should the Results delivered by CTL be used by the Client or Client's client, even though subsequently determined not to meet the warranties described in these Terms and Conditions, then the compensation will be adjusted based upon mutual agreement. In no case shall the Client unreasonably withhold CTL's right to independently defend its data.

5.4 CTL reserves the right to subcontract services ordered by the Client to another laboratory or laboratories, if, in CTL's sole judgment, it is reasonably necessary, appropriate or advisable to do so, and with the Client's permission. CTL will in no way be liable for any subcontracted services and all applicable warranties, guarantees and insurance are those of the subcontracted laboratory.

5.5 CTL shall dispose of the Client's samples 30 days after the analytical report is issued, unless instructed to store them for an alternate period of time or to return such samples to the Client, in a manner consistent with U.S. Environmental Protection Agency regulations or other applicable Federal, state or local requirements. Any samples for projects that are canceled or not accepted, or for which return was requested, will be returned to the Client at their own expense. CTL reserves the right to return to the Client any sample or unused portion of a sample that is not within CTL's permitted capability or the capabilities of CTL's designated waste disposal vendor(s).

5.6 Unless a different time period is agreed to in any order under these Terms and Conditions, CTL agrees to retain all records for five (5) years.

5.7 In the event that CTL is required to respond to legal process related to services for Client, Client agrees to reimburse CTL for hourly charges for personnel involved in the response and attorney fees reasonably incurred in obtaining advice concerning the response, preparation to testify, and appearances related to the legal process, travel and all reasonable expenses associated with the litigation.

6. INSURANCE

6.1 CTL shall maintain in force during the performance of services under these Terms and Conditions, Workers' Compensation and Employer's Liability Insurance in accordance with the laws of the states having jurisdiction over CTL's employees who are engaged in the performance of the work. CTL shall also maintain during such period, Comprehensive General and Contractual Liability (limit of \$2,000,000 per occurrence/aggregate), Comprehensive Automobile Liability, owned and hired, (\$1,000,000 combined single limit), and Professional/Pollution Liability Insurance (limit of \$5,000,000 per occurrence/aggregate). Any Client required changes to these limits or conditions may result in a change in cost to the Client.

7. AUDIT

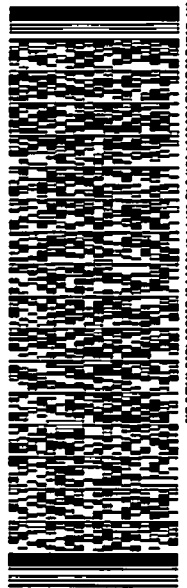
7.1 Upon prior notice to CTL, the Client may audit and inspect CTL's records and accounts covering reimbursable costs related to work done for the Client, for a period of one (1) year after completion of the work. The purpose of any such audit shall be only for verification of such costs, and CTL shall not be required to provide access to cost records where prices are expressed as fixed fees or published unit prices.

ORIGIN ID:RRLA (262) 782-1282
ASHLEY KOMALEWSKI
TETRA TECH
175 N CORPORATE DRIVE
STE 100
BROOKFIELD, WI 53045
UNITED STATES US

SHIP DATE: 02NOV16
ACTWGT: 45.00 LB
CAP: 11043550NEM 3790
DIM3: 24X14X15 IN
BILL SENDER

TO **BRETT SZYMANSKI**
CT LABORATORIES
1230 LANGE COURT

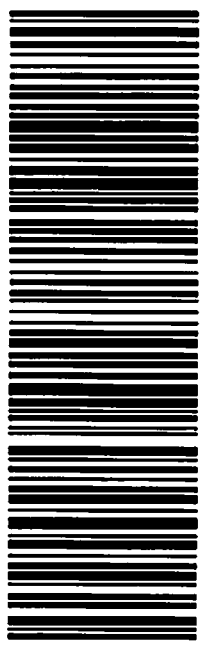
BARABOO WI 53913
(609) 356-2766 REF: 117-7413001 01
PO DEPT



544J2/2506/14E9

TRK# 7776 2413 8526
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THU - 03 NOV 10:30A
PRIORITY OVERNIGHT
DSR

55 MSNA
WI-US
53913 MSN



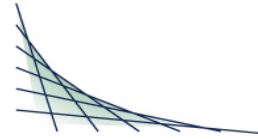
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Ice Present Yes No
 Temperature 1.1 #14
 Initials DL
 Date 11-3-14 Time 12:21
 Cooler # 5906



ANALYTICAL REPORT

This report at a minimum contains the following information:

- Analytical Report of Test Results
- Description of QC Qualifiers
- Chain of Custody (copy)
- Quality Control Summary
- Case Narrative (if applicable)
- Correspondence with Client (if applicable)

This report has been specifically prepared to satisfy project or program requirements. These results are in compliance with NELAC requirements for parameters where accreditation is required or available, unless otherwise noted in the case narrative.



ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase:
 Project #: 117-7413001.01
 Folder #: 123429
 Purchase Order #:
 Contract #: 2747

Page 1 of 5
 Arrival Temperature: 3.5
 Report Date: 11/30/2016
 Date Received: 11/04/2016
 Reprint Date: 11/30/2016

CT LAB#: 800738	Sample Description: MW-9S	DNR License/Well #: 4189/014	Sampled: 11/03/2016 1030
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Field Results										
Dissolved Oxygen (Field)	0.14	mg/L	N/A	N/A	1			11/03/2016 00:00	BMS	
Depth to Groundwater (Field)	4.77	Feet	N/A	N/A	1			11/03/2016 00:00	BMS	
OX/REDOX (Field)	-61	MV	N/A	N/A	1			11/03/2016 00:00	BMS	
Color (Field)	CLEAR		N/A	N/A	1			11/03/2016 00:00	BMS	FIELD
Conductivity (Field)	1400	umhos/cm	N/A	N/A	1			11/03/2016 00:00	BMS	FIELD
Groundwater Elevation (Field)	846.80	Feet MSL	N/A	N/A	1			11/03/2016 00:00	BMS	FIELD
pH (Field)	7.23	S.U.	N/A	N/A	1			11/03/2016 00:00	BMS	FIELD
Temperature (Field)	7.32	Deg. C	N/A	N/A	1			11/03/2016 00:00	BMS	FIELD
Turbidity (Field)	CLEAR		N/A	N/A	1			11/03/2016 00:00	BMS	FIELD
Inorganic Results										
Alkalinity Total	360	mg/L	5.0	18	1			11/11/2016 10:51	SAW	EPA 310.2
Total Chloride	260	mg/L	3.5	12	5			11/04/2016 18:13	JJF	EPA 9056A
Total Sulfate	56	mg/L	5.0	16	5			11/04/2016 18:13	JJF	EPA 9056A
Total Organic Carbon	1.8	mg/L	0.50	1.7	1			11/07/2016 21:00	JJF	EPA 9060A
Metals Results										

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

The depth to groundwater and groundwater elevation results listed above are from a previous sampling round and therefore incorrect.

CT LAB#: 800738 Sample Description:MW-9S

DNR License/Well #: 4189/014

Sampled: 11/03/2016 1030

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Total Iron	1.36	mg/L	0.034	0.11	1		11/08/2016 15:00	11/09/2016 23:22	NAH	EPA 6010C
Total Manganese	71.8	ug/L	3.4	11	1		11/08/2016 15:00	11/09/2016 23:22	NAH	EPA 6010C
Organic Results										
Acetylene	<0.23	ug/L	0.23	0.77	1	U	11/10/2016 09:00	11/11/2016 13:51	agk	Mod RSK 175
Ethane	<0.40	ug/L	0.40	1.2	1	U	11/10/2016 09:00	11/11/2016 13:51	agk	Mod RSK 175
Ethene	<0.50	ug/L	0.50	1.8	1	U	11/10/2016 09:00	11/11/2016 13:51	agk	Mod RSK 175
Methane	18	ug/L	0.40	1.2	1		11/10/2016 09:00	11/11/2016 13:51	agk	Mod RSK 175
1,1,1,2-Tetrachloroethane	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 13:03	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.050	ug/L	0.050	0.17	1	U		11/10/2016 13:03	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.017	ug/L	0.017	0.057	1	U		11/10/2016 13:03	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.050	ug/L	0.050	0.16	1	U		11/10/2016 13:03	RLD	EPA 8260C
1,1-Dichloroethane	0.15	ug/L	0.060	0.19	1	J		11/10/2016 13:03	RLD	EPA 8260C
1,1-Dichloroethene	<0.060	ug/L	0.060	0.20	1	U		11/10/2016 13:03	RLD	EPA 8260C
1,1-Dichloropropene	<0.060	ug/L	0.060	0.19	1	U		11/10/2016 13:03	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 13:03	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.040	ug/L	0.040	0.14	1	U		11/10/2016 13:03	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.040	ug/L	0.040	0.12	1	U		11/10/2016 13:03	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.040	ug/L	0.040	0.12	1	U		11/10/2016 13:03	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.090	ug/L	0.090	0.29	1	U		11/10/2016 13:03	RLD	EPA 8260C
1,2-Dibromoethane	<0.070	ug/L	0.070	0.23	1	U		11/10/2016 13:03	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 13:03	RLD	EPA 8260C
1,2-Dichloroethane	<0.050	ug/L	0.050	0.18	1	U		11/10/2016 13:03	RLD	EPA 8260C
1,2-Dichloropropane	<0.070	ug/L	0.070	0.23	1	U		11/10/2016 13:03	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<0.050	ug/L	0.050	0.16	1	U		11/10/2016 13:03	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 13:03	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 800738 Sample Description:MW-9S

DNR License/Well #: 4189/014

Sampled: 11/03/2016 1030

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,3-Dichloropropane	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 13:03	RLD	EPA 8260C
1,4-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 13:03	RLD	EPA 8260C
2,2-Dichloropropane	<0.050	ug/L	0.050	0.15	1	U		11/10/2016 13:03	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.5	1	U		11/10/2016 13:03	RLD	EPA 8260C
2-Chlorotoluene	<0.030	ug/L	0.030	0.11	1	U		11/10/2016 13:03	RLD	EPA 8260C
2-Hexanone	<0.24	ug/L	0.24	0.81	1	U		11/10/2016 13:03	RLD	EPA 8260C
4-Chlorotoluene	<0.040	ug/L	0.040	0.12	1	U		11/10/2016 13:03	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.24	ug/L	0.24	0.82	1	U		11/10/2016 13:03	RLD	EPA 8260C
Acetone	<0.30	ug/L	0.30	1.0	1	U		11/10/2016 13:03	RLD	EPA 8260C
Benzene	<0.018	ug/L	0.018	0.059	1	U		11/10/2016 13:03	RLD	EPA 8260C
Bromobenzene	<0.040	ug/L	0.040	0.15	1	U		11/10/2016 13:03	RLD	EPA 8260C
Bromochloromethane	<0.030	ug/L	0.030	0.099	1	U		11/10/2016 13:03	RLD	EPA 8260C
Bromodichloromethane	<0.016	ug/L	0.016	0.054	1	U		11/10/2016 13:03	RLD	EPA 8260C
Bromoform	<0.040	ug/L	0.040	0.12	1	U Z		11/10/2016 13:03	RLD	EPA 8260C
Bromomethane	<0.080	ug/L	0.080	0.28	1	U		11/10/2016 13:03	RLD	EPA 8260C
Carbon disulfide	<0.070	ug/L	0.070	0.25	1	U		11/10/2016 13:03	RLD	EPA 8260C
Carbon tetrachloride	<0.050	ug/L	0.050	0.18	1	U		11/10/2016 13:03	RLD	EPA 8260C
Chlorobenzene	<0.040	ug/L	0.040	0.15	1	U		11/10/2016 13:03	RLD	EPA 8260C
Chloroethane	<0.070	ug/L	0.070	0.23	1	U		11/10/2016 13:03	RLD	EPA 8260C
Chloroform	<0.030	ug/L	0.030	0.11	1	U		11/10/2016 13:03	RLD	EPA 8260C
Chloromethane	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 13:03	RLD	EPA 8260C
cis-1,2-Dichloroethene	<0.070	ug/L	0.070	0.23	1	U		11/10/2016 13:03	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.011	ug/L	0.011	0.038	1	U		11/10/2016 13:03	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1	U		11/10/2016 13:03	RLD	EPA 8260C
Dibromomethane	<0.050	ug/L	0.050	0.17	1	U		11/10/2016 13:03	RLD	EPA 8260C
Dichlorodifluoromethane	<0.060	ug/L	0.060	0.19	1	U		11/10/2016 13:03	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 800738 Sample Description:MW-9S

DNR License/Well #: 4189/014

Sampled: 11/03/2016 1030

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Diisopropyl ether	<0.040	ug/L	0.040	0.14	1	U	11/10/2016 13:03	11/10/2016 13:03	RLD	EPA 8260C
Ethylbenzene	<0.040	ug/L	0.040	0.15	1	U	11/10/2016 13:03	11/10/2016 13:03	RLD	EPA 8260C
Hexachlorobutadiene	<0.050	ug/L	0.050	0.16	1	U	11/10/2016 13:03	11/10/2016 13:03	RLD	EPA 8260C
Isopropylbenzene	<0.040	ug/L	0.040	0.12	1	U	11/10/2016 13:03	11/10/2016 13:03	RLD	EPA 8260C
m & p-Xylene	<0.070	ug/L	0.070	0.23	1	U	11/10/2016 13:03	11/10/2016 13:03	RLD	EPA 8260C
Methyl tert-butyl ether	<0.040	ug/L	0.040	0.12	1	U	11/10/2016 13:03	11/10/2016 13:03	RLD	EPA 8260C
Methylene chloride	<0.050	ug/L	0.050	0.16	1	U	11/10/2016 13:03	11/10/2016 13:03	RLD	EPA 8260C
n-Butylbenzene	<0.030	ug/L	0.030	0.11	1	U	11/10/2016 13:03	11/10/2016 13:03	RLD	EPA 8260C
n-Propylbenzene	<0.040	ug/L	0.040	0.13	1	U	11/10/2016 13:03	11/10/2016 13:03	RLD	EPA 8260C
Naphthalene	<0.030	ug/L	0.030	0.10	1	U	11/10/2016 13:03	11/10/2016 13:03	RLD	EPA 8260C
o-Xylene	<0.040	ug/L	0.040	0.14	1	U	11/10/2016 13:03	11/10/2016 13:03	RLD	EPA 8260C
p-Isopropyltoluene	<0.040	ug/L	0.040	0.13	1	U	11/10/2016 13:03	11/10/2016 13:03	RLD	EPA 8260C
sec-Butylbenzene	<0.050	ug/L	0.050	0.16	1	U	11/10/2016 13:03	11/10/2016 13:03	RLD	EPA 8260C
Styrene	<0.030	ug/L	0.030	0.11	1	U	11/10/2016 13:03	11/10/2016 13:03	RLD	EPA 8260C
tert-Butylbenzene	<0.040	ug/L	0.040	0.14	1	U	11/10/2016 13:03	11/10/2016 13:03	RLD	EPA 8260C
Tetrachloroethene	<0.050	ug/L	0.050	0.18	1	U	11/10/2016 13:03	11/10/2016 13:03	RLD	EPA 8260C
Tetrahydrofuran	<0.40	ug/L	0.40	1.5	1	U	11/10/2016 13:03	11/10/2016 13:03	RLD	EPA 8260C
Toluene	<0.040	ug/L	0.040	0.13	1	U	11/10/2016 13:03	11/10/2016 13:03	RLD	EPA 8260C
trans-1,2-Dichloroethene	<0.040	ug/L	0.040	0.14	1	U	11/10/2016 13:03	11/10/2016 13:03	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.019	ug/L	0.019	0.063	1	U	11/10/2016 13:03	11/10/2016 13:03	RLD	EPA 8260C
Trichloroethene	0.17	ug/L	0.050	0.17	1		11/10/2016 13:03	11/10/2016 13:03	RLD	EPA 8260C
Trichlorofluoromethane	<0.090	ug/L	0.090	0.14	1	U	11/10/2016 13:03	11/10/2016 13:03	RLD	EPA 8260C
Vinyl acetate	<0.22	ug/L	0.22	0.73	1	U	11/10/2016 13:03	11/10/2016 13:03	RLD	EPA 8260C
Vinyl chloride	<0.019	ug/L	0.019	0.064	1	U	11/10/2016 13:03	11/10/2016 13:03	RLD	EPA 8260C
1,4-Dioxane	<7.0	ug/L	7.0	23	1	U	11/10/2016 13:03	11/10/2016 13:03	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications
Kansas NELAP ID# E-10368
Kentucky ID# 0023
ISO/IEC 17025-2005 A2LA Cert # 3806.01
North Carolina ID# 674
Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID E871111, Expires Annually
Louisiana ID # 115843
Virginia ID# 7608
Illinois NELAP ID # 002413
Wisconsin (WOSB) ID# WI-5499-WBE
Maryland ID# 344

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase:
 Project #: 117-7413001.01
 Folder #: 123429
 Purchase Order #:
 Contract #: 2747

Page 1 of 2
 Arrival Temperature: 3.5
 Report Date: 11/30/2016
 Date Received: 11/04/2016
 Reprint Date: 11/30/2016

CT LAB#: 800739	Sample Description: MW-9S	DNR License/Well #: 4189/014	Sampled: 11/03/2016 1030
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Metals Results										
Dissolved Iron	0.641	mg/L	0.059	0.20	1		11/08/2016 21:52	11/08/2016 21:52	NAH	EPA 6010C
Dissolved Manganese	73.0	ug/L	2.2	7.3	1		11/08/2016 21:52	11/08/2016 21:52	NAH	EPA 6010C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

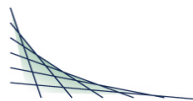
Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications
Kansas NELAP ID# E-10368
Kentucky ID# 0023
ISO/IEC 17025-2005 A2LA Cert # 3806.01
North Carolina ID# 674
Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID E8711111, Expires Annually
Louisiana ID # 115843
Virginia ID# 7608
Illinois NELAP ID # 002413
Wisconsin (WOSB) ID# WI-5499-WBE
Maryland ID# 344



ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase:
 Project #: 117-7413001.01
 Folder #: 123429
 Purchase Order #:
 Contract #: 2747

Page 1 of 5
 Arrival Temperature: 3.5
 Report Date: 11/30/2016
 Date Received: 11/04/2016
 Reprint Date: 11/30/2016

CT LAB#: 800740	Sample Description: MW-5D	DNR License/Well #: 4189/010	Sampled: 11/03/2016 1115
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Field Results										
Dissolved Oxygen (Field)	0.15	mg/L	N/A	N/A	1			11/03/2016 00:00	BMS	
Depth to Groundwater (Field)	3.72	Feet	N/A	N/A	1			11/03/2016 00:00	BMS	
OX/REDOX (Field)	-81	MV	N/A	N/A	1			11/03/2016 00:00	BMS	
Color (Field)	CLEAR		N/A	N/A	1			11/03/2016 00:00	BMS	FIELD
Conductivity (Field)	1070	umhos/cm	N/A	N/A	1			11/03/2016 00:00	BMS	FIELD
Groundwater Elevation (Field)	845.08	Feet MSL	N/A	N/A	1			11/03/2016 00:00	BMS	FIELD
pH (Field)	7.21	S.U.	N/A	N/A	1			11/03/2016 00:00	BMS	FIELD
Temperature (Field)	6.47	Deg. C	N/A	N/A	1			11/03/2016 00:00	BMS	FIELD
Turbidity (Field)	CLEAR		N/A	N/A	1			11/03/2016 00:00	BMS	FIELD
Inorganic Results										
Alkalinity Total	410	mg/L	5.0	18	1			11/11/2016 10:52	SAW	EPA 310.2
Total Chloride	140	mg/L	2.1	7.2	3			11/04/2016 18:34	JJF	EPA 9056A
Total Sulfate	47	mg/L	3.0	9.6	3			11/04/2016 18:34	JJF	EPA 9056A
Total Organic Carbon	1.5	mg/L	0.50	1.7	1	J		11/07/2016 21:12	JJF	EPA 9060A
Metals Results										

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

The depth to groundwater and groundwater elevation results listed above are from a previous sampling round and therefore incorrect.

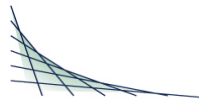
CT LAB#: 800740 Sample Description:MW-5D

DNR License/Well #: 4189/010

Sampled: 11/03/2016 1115

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Total Iron	2.11	mg/L	0.034	0.11	1		11/08/2016 15:00	11/09/2016 23:29	NAH	EPA 6010C
Total Manganese	70.2	ug/L	3.4	11	1		11/08/2016 15:00	11/09/2016 23:29	NAH	EPA 6010C
Organic Results										
Acetylene	<0.23	ug/L	0.23	0.77	1	U	11/10/2016 09:00	11/11/2016 15:00	agk	Mod RSK 175
Ethane	<0.40	ug/L	0.40	1.2	1	U	11/10/2016 09:00	11/11/2016 15:00	agk	Mod RSK 175
Ethene	<0.50	ug/L	0.50	1.8	1	U	11/10/2016 09:00	11/11/2016 15:00	agk	Mod RSK 175
Methane	38	ug/L	2.0	6.0	5	M	11/10/2016 09:00	11/11/2016 15:09	AGK	Mod RSK 175
1,1,1,2-Tetrachloroethane	<0.20	ug/L	0.20	0.65	5	U		11/10/2016 18:23	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.25	ug/L	0.25	0.85	5	U		11/10/2016 18:23	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.085	ug/L	0.085	0.29	5	U		11/10/2016 18:23	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.25	ug/L	0.25	0.80	5	U		11/10/2016 18:23	RLD	EPA 8260C
1,1-Dichloroethane	6.7	ug/L	0.30	0.95	5			11/10/2016 18:23	RLD	EPA 8260C
1,1-Dichloroethene	0.69	ug/L	0.30	1.0	5	J		11/10/2016 18:23	RLD	EPA 8260C
1,1-Dichloropropene	<0.30	ug/L	0.30	0.95	5	U		11/10/2016 18:23	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.20	ug/L	0.20	0.65	5	U		11/10/2016 18:23	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.20	ug/L	0.20	0.70	5	U		11/10/2016 18:23	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.20	ug/L	0.20	0.60	5	U		11/10/2016 18:23	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.20	ug/L	0.20	0.60	5	U		11/10/2016 18:23	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.45	ug/L	0.45	1.5	5	U		11/10/2016 18:23	RLD	EPA 8260C
1,2-Dibromoethane	<0.35	ug/L	0.35	1.2	5	U		11/10/2016 18:23	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.20	ug/L	0.20	0.65	5	U		11/10/2016 18:23	RLD	EPA 8260C
1,2-Dichloroethane	0.39	ug/L	0.25	0.90	5	J		11/10/2016 18:23	RLD	EPA 8260C
1,2-Dichloropropane	<0.35	ug/L	0.35	1.2	5	U		11/10/2016 18:23	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<0.25	ug/L	0.25	0.80	5	U		11/10/2016 18:23	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.20	ug/L	0.20	0.65	5	U		11/10/2016 18:23	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis



CT LAB#: 800740 Sample Description:MW-5D

DNR License/Well #: 4189/010

Sampled: 11/03/2016 1115

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,3-Dichloropropane	<0.20	ug/L	0.20	0.65	5	U		11/10/2016 18:23	RLD	EPA 8260C
1,4-Dichlorobenzene	<0.20	ug/L	0.20	0.65	5	U		11/10/2016 18:23	RLD	EPA 8260C
2,2-Dichloropropane	<0.25	ug/L	0.25	0.75	5	U		11/10/2016 18:23	RLD	EPA 8260C
2-Butanone	<2.5	ug/L	2.5	7.5	5	U		11/10/2016 18:23	RLD	EPA 8260C
2-Chlorotoluene	<0.15	ug/L	0.15	0.55	5	U		11/10/2016 18:23	RLD	EPA 8260C
2-Hexanone	<1.2	ug/L	1.2	4.1	5	U		11/10/2016 18:23	RLD	EPA 8260C
4-Chlorotoluene	<0.20	ug/L	0.20	0.60	5	U		11/10/2016 18:23	RLD	EPA 8260C
4-Methyl-2-pentanone	<1.2	ug/L	1.2	4.1	5	U		11/10/2016 18:23	RLD	EPA 8260C
Acetone	<1.5	ug/L	1.5	5.0	5	U		11/10/2016 18:23	RLD	EPA 8260C
Benzene	<0.090	ug/L	0.090	0.30	5	U		11/10/2016 18:23	RLD	EPA 8260C
Bromobenzene	<0.20	ug/L	0.20	0.75	5	U		11/10/2016 18:23	RLD	EPA 8260C
Bromochloromethane	<0.15	ug/L	0.15	0.50	5	U		11/10/2016 18:23	RLD	EPA 8260C
Bromodichloromethane	<0.080	ug/L	0.080	0.27	5	U		11/10/2016 18:23	RLD	EPA 8260C
Bromoform	<0.20	ug/L	0.20	0.60	5	U Z		11/10/2016 18:23	RLD	EPA 8260C
Bromomethane	<0.40	ug/L	0.40	1.4	5	U		11/10/2016 18:23	RLD	EPA 8260C
Carbon disulfide	<0.35	ug/L	0.35	1.3	5	U		11/10/2016 18:23	RLD	EPA 8260C
Carbon tetrachloride	<0.25	ug/L	0.25	0.90	5	U		11/10/2016 18:23	RLD	EPA 8260C
Chlorobenzene	<0.20	ug/L	0.20	0.75	5	U		11/10/2016 18:23	RLD	EPA 8260C
Chloroethane	<0.35	ug/L	0.35	1.2	5	U		11/10/2016 18:23	RLD	EPA 8260C
Chloroform	<0.15	ug/L	0.15	0.55	5	U		11/10/2016 18:23	RLD	EPA 8260C
Chloromethane	<0.20	ug/L	0.20	0.65	5	U		11/10/2016 18:23	RLD	EPA 8260C
cis-1,2-Dichloroethene	67	ug/L	0.35	1.2	5			11/10/2016 18:23	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.055	ug/L	0.055	0.19	5	U		11/10/2016 18:23	RLD	EPA 8260C
Dibromochloromethane	<0.15	ug/L	0.15	0.50	5	U		11/10/2016 18:23	RLD	EPA 8260C
Dibromomethane	<0.25	ug/L	0.25	0.85	5	U		11/10/2016 18:23	RLD	EPA 8260C
Dichlorodifluoromethane	<0.30	ug/L	0.30	0.95	5	U		11/10/2016 18:23	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 800740 Sample Description:MW-5D

DNR License/Well #: 4189/010

Sampled: 11/03/2016 1115

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Diisopropyl ether	<0.20	ug/L	0.20	0.70	5	U	11/10/2016	18:23	RLD	EPA 8260C
Ethylbenzene	<0.20	ug/L	0.20	0.75	5	U	11/10/2016	18:23	RLD	EPA 8260C
Hexachlorobutadiene	<0.25	ug/L	0.25	0.80	5	U	11/10/2016	18:23	RLD	EPA 8260C
Isopropylbenzene	<0.20	ug/L	0.20	0.60	5	U	11/10/2016	18:23	RLD	EPA 8260C
m & p-Xylene	<0.35	ug/L	0.35	1.2	5	U	11/10/2016	18:23	RLD	EPA 8260C
Methyl tert-butyl ether	<0.20	ug/L	0.20	0.60	5	U	11/10/2016	18:23	RLD	EPA 8260C
Methylene chloride	<0.25	ug/L	0.25	0.80	5	U	11/10/2016	18:23	RLD	EPA 8260C
n-Butylbenzene	<0.15	ug/L	0.15	0.55	5	U	11/10/2016	18:23	RLD	EPA 8260C
n-Propylbenzene	<0.20	ug/L	0.20	0.65	5	U	11/10/2016	18:23	RLD	EPA 8260C
Naphthalene	<0.15	ug/L	0.15	0.50	5	U	11/10/2016	18:23	RLD	EPA 8260C
o-Xylene	<0.20	ug/L	0.20	0.70	5	U	11/10/2016	18:23	RLD	EPA 8260C
p-Isopropyltoluene	<0.20	ug/L	0.20	0.65	5	U	11/10/2016	18:23	RLD	EPA 8260C
sec-Butylbenzene	<0.25	ug/L	0.25	0.80	5	U	11/10/2016	18:23	RLD	EPA 8260C
Styrene	<0.15	ug/L	0.15	0.55	5	U	11/10/2016	18:23	RLD	EPA 8260C
tert-Butylbenzene	<0.20	ug/L	0.20	0.70	5	U	11/10/2016	18:23	RLD	EPA 8260C
Tetrachloroethene	<0.25	ug/L	0.25	0.90	5	U	11/10/2016	18:23	RLD	EPA 8260C
Tetrahydrofuran	<2.0	ug/L	2.0	7.5	5	U	11/10/2016	18:23	RLD	EPA 8260C
Toluene	<0.20	ug/L	0.20	0.65	5	U	11/10/2016	18:23	RLD	EPA 8260C
trans-1,2-Dichloroethene	9.2	ug/L	0.20	0.70	5		11/10/2016	18:23	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.095	ug/L	0.095	0.32	5	U	11/10/2016	18:23	RLD	EPA 8260C
Trichloroethene	50	ug/L	0.25	0.85	5		11/10/2016	18:23	RLD	EPA 8260C
Trichlorofluoromethane	<0.45	ug/L	0.45	0.70	5	U	11/10/2016	18:23	RLD	EPA 8260C
Vinyl acetate	<1.1	ug/L	1.1	3.7	5	U	11/10/2016	18:23	RLD	EPA 8260C
Vinyl chloride	3.4	ug/L	0.095	0.32	5		11/10/2016	18:23	RLD	EPA 8260C
1,4-Dioxane	<35	ug/L	35	120	5	U	11/10/2016	18:23	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications
Kansas NELAP ID# E-10368
Kentucky ID# 0023
ISO/IEC 17025-2005 A2LA Cert # 3806.01
North Carolina ID# 674
Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID E8711111, Expires Annually
Louisiana ID # 115843
Virginia ID# 7608
Illinois NELAP ID # 002413
Wisconsin (WOSB) ID# WI-5499-WBE
Maryland ID# 344

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase:
 Project #: 117-7413001.01
 Folder #: 123429
 Purchase Order #:
 Contract #: 2747

Page 1 of 2
 Arrival Temperature: 3.5
 Report Date: 11/30/2016
 Date Received: 11/04/2016
 Reprint Date: 11/30/2016

CT LAB#: 800741	Sample Description: MW-5D	DNR License/Well #: 4189/010	Sampled: 11/03/2016 1115
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Metals Results										
Dissolved Iron	1.83	mg/L	0.059	0.20	1			11/08/2016 21:59	NAH	EPA 6010C
Dissolved Manganese	71.1	ug/L	2.2	7.3	1			11/08/2016 21:59	NAH	EPA 6010C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications
Kansas NELAP ID# E-10368
Kentucky ID# 0023
ISO/IEC 17025-2005 A2LA Cert # 3806.01
North Carolina ID# 674
Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID E8711111, Expires Annually
Louisiana ID # 115843
Virginia ID# 7608
Illinois NELAP ID # 002413
Wisconsin (WOSB) ID# WI-5499-WBE
Maryland ID# 344

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase:
 Project #: 117-7413001.01
 Folder #: 123429
 Purchase Order #:
 Contract #: 2747

Page 1 of 5
 Arrival Temperature: 3.5
 Report Date: 11/30/2016
 Date Received: 11/04/2016
 Reprint Date: 11/30/2016

CT LAB#: 800742	Sample Description: MW-1D	DNR License/Well #: 4189/002	Sampled: 11/03/2016 1205
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Field Results										
Dissolved Oxygen (Field)	0.72	mg/L	N/A	N/A	1			11/03/2016 00:00	BMS	
Depth to Groundwater (Field)	5.07	Feet	N/A	N/A	1			11/03/2016 00:00	BMS	
OX/REDOX (Field)	-144	MV	N/A	N/A	1			11/03/2016 00:00	BMS	
Color (Field)	CLEAR		N/A	N/A	1			11/03/2016 00:00	BMS	FIELD
Conductivity (Field)	562	umhos/cm	N/A	N/A	1			11/03/2016 00:00	BMS	FIELD
Groundwater Elevation (Field)	848.07	Feet MSL	N/A	N/A	1			11/03/2016 00:00	BMS	FIELD
pH (Field)	7.48	S.U.	N/A	N/A	1			11/03/2016 00:00	BMS	FIELD
Temperature (Field)	8.33	Deg. C	N/A	N/A	1			11/03/2016 00:00	BMS	FIELD
Turbidity (Field)	CLEAR		N/A	N/A	1			11/03/2016 00:00	BMS	FIELD
Inorganic Results										
Alkalinity Total	380	mg/L	5.0	18	1			11/11/2016 10:53	SAW	EPA 310.2
Total Chloride	5.9	mg/L	0.70	2.4	1			11/04/2016 18:55	JJF	EPA 9056A
Total Sulfate	<1.0	mg/L	1.0	3.2	1	U		11/04/2016 18:55	JJF	EPA 9056A
Total Organic Carbon	<0.50	mg/L	0.50	1.7	1	U		11/07/2016 21:24	JJF	EPA 9060A
Metals Results										

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis
 The depth to groundwater and groundwater elevation results listed above are from a previous sampling round and therefore incorrect.

CT LAB#: 800742 Sample Description:MW-1D

DNR License/Well #: 4189/002

Sampled: 11/03/2016 1205

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Total Iron	2.98	mg/L	0.034	0.11	1		11/08/2016 15:00	11/09/2016 23:37	NAH	EPA 6010C
Total Manganese	18.7	ug/L	3.4	11	1		11/08/2016 15:00	11/09/2016 23:37	NAH	EPA 6010C
Organic Results										
Acetylene	<0.23	ug/L	0.23	0.77	1	U	11/10/2016 09:00	11/11/2016 15:39	agk	Mod RSK 175
Ethane	0.60	ug/L	0.40	1.2	1	J	11/10/2016 09:00	11/11/2016 15:39	agk	Mod RSK 175
Ethene	<0.50	ug/L	0.50	1.8	1	U	11/10/2016 09:00	11/11/2016 15:39	agk	Mod RSK 175
Methane	110	ug/L	20	60	50		11/10/2016 09:00	11/11/2016 16:09	AGK	Mod RSK 175
1,1,1,2-Tetrachloroethane	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 13:32	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.050	ug/L	0.050	0.17	1	U		11/10/2016 13:32	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.017	ug/L	0.017	0.057	1	U		11/10/2016 13:32	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.050	ug/L	0.050	0.16	1	U		11/10/2016 13:32	RLD	EPA 8260C
1,1-Dichloroethane	<0.060	ug/L	0.060	0.19	1	U		11/10/2016 13:32	RLD	EPA 8260C
1,1-Dichloroethene	<0.060	ug/L	0.060	0.20	1	U		11/10/2016 13:32	RLD	EPA 8260C
1,1-Dichloropropene	<0.060	ug/L	0.060	0.19	1	U		11/10/2016 13:32	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 13:32	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.040	ug/L	0.040	0.14	1	U		11/10/2016 13:32	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.040	ug/L	0.040	0.12	1	U		11/10/2016 13:32	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.040	ug/L	0.040	0.12	1	U		11/10/2016 13:32	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.090	ug/L	0.090	0.29	1	U		11/10/2016 13:32	RLD	EPA 8260C
1,2-Dibromoethane	<0.070	ug/L	0.070	0.23	1	U		11/10/2016 13:32	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 13:32	RLD	EPA 8260C
1,2-Dichloroethane	<0.050	ug/L	0.050	0.18	1	U		11/10/2016 13:32	RLD	EPA 8260C
1,2-Dichloropropane	<0.070	ug/L	0.070	0.23	1	U		11/10/2016 13:32	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<0.050	ug/L	0.050	0.16	1	U		11/10/2016 13:32	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 13:32	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 800742 Sample Description:MW-1D

DNR License/Well #: 4189/002

Sampled: 11/03/2016 1205

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,3-Dichloropropane	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 13:32	RLD	EPA 8260C
1,4-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 13:32	RLD	EPA 8260C
2,2-Dichloropropane	<0.050	ug/L	0.050	0.15	1	U		11/10/2016 13:32	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.5	1	U		11/10/2016 13:32	RLD	EPA 8260C
2-Chlorotoluene	<0.030	ug/L	0.030	0.11	1	U		11/10/2016 13:32	RLD	EPA 8260C
2-Hexanone	<0.24	ug/L	0.24	0.81	1	U		11/10/2016 13:32	RLD	EPA 8260C
4-Chlorotoluene	<0.040	ug/L	0.040	0.12	1	U		11/10/2016 13:32	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.24	ug/L	0.24	0.82	1	U		11/10/2016 13:32	RLD	EPA 8260C
Acetone	<0.30	ug/L	0.30	1.0	1	U		11/10/2016 13:32	RLD	EPA 8260C
Benzene	0.032	ug/L	0.018	0.059	1	J		11/10/2016 13:32	RLD	EPA 8260C
Bromobenzene	<0.040	ug/L	0.040	0.15	1	U		11/10/2016 13:32	RLD	EPA 8260C
Bromochloromethane	<0.030	ug/L	0.030	0.099	1	U		11/10/2016 13:32	RLD	EPA 8260C
Bromodichloromethane	<0.016	ug/L	0.016	0.054	1	U		11/10/2016 13:32	RLD	EPA 8260C
Bromoform	<0.040	ug/L	0.040	0.12	1	U Z		11/10/2016 13:32	RLD	EPA 8260C
Bromomethane	<0.080	ug/L	0.080	0.28	1	U		11/10/2016 13:32	RLD	EPA 8260C
Carbon disulfide	<0.070	ug/L	0.070	0.25	1	U		11/10/2016 13:32	RLD	EPA 8260C
Carbon tetrachloride	<0.050	ug/L	0.050	0.18	1	U		11/10/2016 13:32	RLD	EPA 8260C
Chlorobenzene	<0.040	ug/L	0.040	0.15	1	U		11/10/2016 13:32	RLD	EPA 8260C
Chloroethane	<0.070	ug/L	0.070	0.23	1	U		11/10/2016 13:32	RLD	EPA 8260C
Chloroform	<0.030	ug/L	0.030	0.11	1	U		11/10/2016 13:32	RLD	EPA 8260C
Chloromethane	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 13:32	RLD	EPA 8260C
cis-1,2-Dichloroethene	<0.070	ug/L	0.070	0.23	1	U		11/10/2016 13:32	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.011	ug/L	0.011	0.038	1	U		11/10/2016 13:32	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1	U		11/10/2016 13:32	RLD	EPA 8260C
Dibromomethane	<0.050	ug/L	0.050	0.17	1	U		11/10/2016 13:32	RLD	EPA 8260C
Dichlorodifluoromethane	<0.060	ug/L	0.060	0.19	1	U		11/10/2016 13:32	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 800742 Sample Description:MW-1D

DNR License/Well #: 4189/002

Sampled: 11/03/2016 1205

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Diisopropyl ether	<0.040	ug/L	0.040	0.14	1	U		11/10/2016 13:32	RLD	EPA 8260C
Ethylbenzene	0.066	ug/L	0.040	0.15	1	J		11/10/2016 13:32	RLD	EPA 8260C
Hexachlorobutadiene	<0.050	ug/L	0.050	0.16	1	U		11/10/2016 13:32	RLD	EPA 8260C
Isopropylbenzene	0.078	ug/L	0.040	0.12	1	J		11/10/2016 13:32	RLD	EPA 8260C
m & p-Xylene	0.082	ug/L	0.070	0.23	1	J		11/10/2016 13:32	RLD	EPA 8260C
Methyl tert-butyl ether	<0.040	ug/L	0.040	0.12	1	U		11/10/2016 13:32	RLD	EPA 8260C
Methylene chloride	<0.050	ug/L	0.050	0.16	1	U		11/10/2016 13:32	RLD	EPA 8260C
n-Butylbenzene	<0.030	ug/L	0.030	0.11	1	U		11/10/2016 13:32	RLD	EPA 8260C
n-Propylbenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 13:32	RLD	EPA 8260C
Naphthalene	0.043	ug/L	0.030	0.10	1	J		11/10/2016 13:32	RLD	EPA 8260C
o-Xylene	<0.040	ug/L	0.040	0.14	1	U		11/10/2016 13:32	RLD	EPA 8260C
p-Isopropyltoluene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 13:32	RLD	EPA 8260C
sec-Butylbenzene	<0.050	ug/L	0.050	0.16	1	U		11/10/2016 13:32	RLD	EPA 8260C
Styrene	0.17	ug/L	0.030	0.11	1			11/10/2016 13:32	RLD	EPA 8260C
tert-Butylbenzene	<0.040	ug/L	0.040	0.14	1	U		11/10/2016 13:32	RLD	EPA 8260C
Tetrachloroethene	<0.050	ug/L	0.050	0.18	1	U		11/10/2016 13:32	RLD	EPA 8260C
Tetrahydrofuran	<0.40	ug/L	0.40	1.5	1	U		11/10/2016 13:32	RLD	EPA 8260C
Toluene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 13:32	RLD	EPA 8260C
trans-1,2-Dichloroethene	<0.040	ug/L	0.040	0.14	1	U		11/10/2016 13:32	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.019	ug/L	0.019	0.063	1	U		11/10/2016 13:32	RLD	EPA 8260C
Trichloroethene	<0.050	ug/L	0.050	0.17	1	U		11/10/2016 13:32	RLD	EPA 8260C
Trichlorofluoromethane	<0.090	ug/L	0.090	0.14	1	U		11/10/2016 13:32	RLD	EPA 8260C
Vinyl acetate	<0.22	ug/L	0.22	0.73	1	U		11/10/2016 13:32	RLD	EPA 8260C
Vinyl chloride	0.11	ug/L	0.019	0.064	1			11/10/2016 13:32	RLD	EPA 8260C
1,4-Dioxane	<7.0	ug/L	7.0	23	1	U		11/10/2016 13:32	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications
Kansas NELAP ID# E-10368
Kentucky ID# 0023
ISO/IEC 17025-2005 A2LA Cert # 3806.01
North Carolina ID# 674
Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID E871111, Expires Annually
Louisiana ID # 115843
Virginia ID# 7608
Illinois NELAP ID # 002413
Wisconsin (WOSB) ID# WI-5499-WBE
Maryland ID# 344

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase:
 Project #: 117-7413001.01
 Folder #: 123429
 Purchase Order #:
 Contract #: 2747

Page 1 of 5
 Arrival Temperature: 3.5
 Report Date: 11/30/2016
 Date Received: 11/04/2016
 Reprint Date: 11/30/2016

CT LAB#: 800744	Sample Description: MW-1S	DNR License/Well #: 4189/001	Sampled: 11/03/2016 1250
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Field Results										
Dissolved Oxygen (Field)	0.01	mg/L	N/A	N/A	1			11/03/2016 00:00	BMS	
Depth to Groundwater (Field)	5.57	Feet	N/A	N/A	1			11/03/2016 00:00	BMS	
OX/REDOX (Field)	-53	MV	N/A	N/A	1			11/03/2016 00:00	BMS	
Color (Field)	CLEAR		N/A	N/A	1			11/03/2016 00:00	BMS	FIELD
Conductivity (Field)	986	umhos/cm	N/A	N/A	1			11/03/2016 00:00	BMS	FIELD
Groundwater Elevation (Field)	847.85	Feet MSL	N/A	N/A	1			11/03/2016 00:00	BMS	FIELD
pH (Field)	7.13	S.U.	N/A	N/A	1			11/03/2016 00:00	BMS	FIELD
Temperature (Field)	9.92	Deg. C	N/A	N/A	1			11/03/2016 00:00	BMS	FIELD
Turbidity (Field)	CLEAR		N/A	N/A	1			11/03/2016 00:00	BMS	FIELD
Inorganic Results										
Alkalinity Total	350	mg/L	5.0	18	1			11/11/2016 10:54	SAW	EPA 310.2
Total Chloride	150	mg/L	2.1	7.2	3			11/04/2016 19:16	JJF	EPA 9056A
Total Sulfate	46	mg/L	3.0	9.6	3			11/04/2016 19:16	JJF	EPA 9056A
Total Organic Carbon	1.4	mg/L	0.50	1.7	1	J		11/07/2016 21:38	JJF	EPA 9060A
Metals Results										

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

The depth to groundwater and groundwater elevation results listed above are from a previous sampling round and therefore incorrect.

CT LAB#: 800744 Sample Description:MW-1S

DNR License/Well #: 4189/001

Sampled: 11/03/2016 1250

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Total Iron	35.0	mg/L	0.034	0.11	1	M	11/08/2016 15:00	11/09/2016 18:37	NAH	EPA 6010C
Total Manganese	124	ug/L	3.4	11	1		11/08/2016 15:00	11/09/2016 18:37	NAH	EPA 6010C
Organic Results										
Acetylene	<0.23	ug/L	0.23	0.77	1	U	11/10/2016 09:00	11/11/2016 16:29	agk	Mod RSK 175
Ethane	<0.40	ug/L	0.40	1.2	1	U	11/10/2016 09:00	11/11/2016 16:29	agk	Mod RSK 175
Ethene	<0.50	ug/L	0.50	1.8	1	U	11/10/2016 09:00	11/11/2016 16:29	agk	Mod RSK 175
Methane	5.7	ug/L	0.40	1.2	1		11/10/2016 09:00	11/11/2016 16:29	agk	Mod RSK 175
1,1,1,2-Tetrachloroethane	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 14:02	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.050	ug/L	0.050	0.17	1	U		11/10/2016 14:02	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.017	ug/L	0.017	0.057	1	U		11/10/2016 14:02	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.050	ug/L	0.050	0.16	1	U		11/10/2016 14:02	RLD	EPA 8260C
1,1-Dichloroethane	0.095	ug/L	0.060	0.19	1	J		11/10/2016 14:02	RLD	EPA 8260C
1,1-Dichloroethene	<0.060	ug/L	0.060	0.20	1	U		11/10/2016 14:02	RLD	EPA 8260C
1,1-Dichloropropene	<0.060	ug/L	0.060	0.19	1	U		11/10/2016 14:02	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 14:02	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.040	ug/L	0.040	0.14	1	U		11/10/2016 14:02	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.040	ug/L	0.040	0.12	1	U		11/10/2016 14:02	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.040	ug/L	0.040	0.12	1	U		11/10/2016 14:02	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.090	ug/L	0.090	0.29	1	U		11/10/2016 14:02	RLD	EPA 8260C
1,2-Dibromoethane	<0.070	ug/L	0.070	0.23	1	U		11/10/2016 14:02	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 14:02	RLD	EPA 8260C
1,2-Dichloroethane	<0.050	ug/L	0.050	0.18	1	U		11/10/2016 14:02	RLD	EPA 8260C
1,2-Dichloropropane	<0.070	ug/L	0.070	0.23	1	U		11/10/2016 14:02	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<0.050	ug/L	0.050	0.16	1	U		11/10/2016 14:02	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 14:02	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 800744 Sample Description:MW-1S

DNR License/Well #: 4189/001

Sampled: 11/03/2016 1250

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,3-Dichloropropane	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 14:02	RLD	EPA 8260C
1,4-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 14:02	RLD	EPA 8260C
2,2-Dichloropropane	<0.050	ug/L	0.050	0.15	1	U		11/10/2016 14:02	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.5	1	U		11/10/2016 14:02	RLD	EPA 8260C
2-Chlorotoluene	<0.030	ug/L	0.030	0.11	1	U		11/10/2016 14:02	RLD	EPA 8260C
2-Hexanone	<0.24	ug/L	0.24	0.81	1	U		11/10/2016 14:02	RLD	EPA 8260C
4-Chlorotoluene	<0.040	ug/L	0.040	0.12	1	U		11/10/2016 14:02	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.24	ug/L	0.24	0.82	1	U		11/10/2016 14:02	RLD	EPA 8260C
Acetone	5.0	ug/L	0.30	1.0	1	B		11/10/2016 14:02	RLD	EPA 8260C
Benzene	<0.018	ug/L	0.018	0.059	1	U		11/10/2016 14:02	RLD	EPA 8260C
Bromobenzene	<0.040	ug/L	0.040	0.15	1	U		11/10/2016 14:02	RLD	EPA 8260C
Bromochloromethane	<0.030	ug/L	0.030	0.099	1	U		11/10/2016 14:02	RLD	EPA 8260C
Bromodichloromethane	<0.016	ug/L	0.016	0.054	1	U		11/10/2016 14:02	RLD	EPA 8260C
Bromoform	<0.040	ug/L	0.040	0.12	1	U Z		11/10/2016 14:02	RLD	EPA 8260C
Bromomethane	<0.080	ug/L	0.080	0.28	1	U		11/10/2016 14:02	RLD	EPA 8260C
Carbon disulfide	<0.070	ug/L	0.070	0.25	1	U		11/10/2016 14:02	RLD	EPA 8260C
Carbon tetrachloride	<0.050	ug/L	0.050	0.18	1	U		11/10/2016 14:02	RLD	EPA 8260C
Chlorobenzene	<0.040	ug/L	0.040	0.15	1	U		11/10/2016 14:02	RLD	EPA 8260C
Chloroethane	<0.070	ug/L	0.070	0.23	1	U		11/10/2016 14:02	RLD	EPA 8260C
Chloroform	<0.030	ug/L	0.030	0.11	1	U		11/10/2016 14:02	RLD	EPA 8260C
Chloromethane	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 14:02	RLD	EPA 8260C
cis-1,2-Dichloroethene	0.14	ug/L	0.070	0.23	1	J		11/10/2016 14:02	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.011	ug/L	0.011	0.038	1	U		11/10/2016 14:02	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1	U		11/10/2016 14:02	RLD	EPA 8260C
Dibromomethane	<0.050	ug/L	0.050	0.17	1	U		11/10/2016 14:02	RLD	EPA 8260C
Dichlorodifluoromethane	<0.060	ug/L	0.060	0.19	1	U		11/10/2016 14:02	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 800744 Sample Description:MW-1S

DNR License/Well #: 4189/001

Sampled: 11/03/2016 1250

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Diisopropyl ether	<0.040	ug/L	0.040	0.14	1	U	11/10/2016 14:02	11/10/2016 14:02	RLD	EPA 8260C
Ethylbenzene	<0.040	ug/L	0.040	0.15	1	U	11/10/2016 14:02	11/10/2016 14:02	RLD	EPA 8260C
Hexachlorobutadiene	<0.050	ug/L	0.050	0.16	1	U	11/10/2016 14:02	11/10/2016 14:02	RLD	EPA 8260C
Isopropylbenzene	<0.040	ug/L	0.040	0.12	1	U	11/10/2016 14:02	11/10/2016 14:02	RLD	EPA 8260C
m & p-Xylene	<0.070	ug/L	0.070	0.23	1	U	11/10/2016 14:02	11/10/2016 14:02	RLD	EPA 8260C
Methyl tert-butyl ether	<0.040	ug/L	0.040	0.12	1	U	11/10/2016 14:02	11/10/2016 14:02	RLD	EPA 8260C
Methylene chloride	<0.050	ug/L	0.050	0.16	1	U	11/10/2016 14:02	11/10/2016 14:02	RLD	EPA 8260C
n-Butylbenzene	<0.030	ug/L	0.030	0.11	1	U	11/10/2016 14:02	11/10/2016 14:02	RLD	EPA 8260C
n-Propylbenzene	<0.040	ug/L	0.040	0.13	1	U	11/10/2016 14:02	11/10/2016 14:02	RLD	EPA 8260C
Naphthalene	<0.030	ug/L	0.030	0.10	1	U	11/10/2016 14:02	11/10/2016 14:02	RLD	EPA 8260C
o-Xylene	<0.040	ug/L	0.040	0.14	1	U	11/10/2016 14:02	11/10/2016 14:02	RLD	EPA 8260C
p-Isopropyltoluene	<0.040	ug/L	0.040	0.13	1	U	11/10/2016 14:02	11/10/2016 14:02	RLD	EPA 8260C
sec-Butylbenzene	<0.050	ug/L	0.050	0.16	1	U	11/10/2016 14:02	11/10/2016 14:02	RLD	EPA 8260C
Styrene	<0.030	ug/L	0.030	0.11	1	U	11/10/2016 14:02	11/10/2016 14:02	RLD	EPA 8260C
tert-Butylbenzene	<0.040	ug/L	0.040	0.14	1	U	11/10/2016 14:02	11/10/2016 14:02	RLD	EPA 8260C
Tetrachloroethene	<0.050	ug/L	0.050	0.18	1	U	11/10/2016 14:02	11/10/2016 14:02	RLD	EPA 8260C
Tetrahydrofuran	<0.40	ug/L	0.40	1.5	1	U	11/10/2016 14:02	11/10/2016 14:02	RLD	EPA 8260C
Toluene	<0.040	ug/L	0.040	0.13	1	U	11/10/2016 14:02	11/10/2016 14:02	RLD	EPA 8260C
trans-1,2-Dichloroethene	<0.040	ug/L	0.040	0.14	1	U	11/10/2016 14:02	11/10/2016 14:02	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.019	ug/L	0.019	0.063	1	U	11/10/2016 14:02	11/10/2016 14:02	RLD	EPA 8260C
Trichloroethene	0.15	ug/L	0.050	0.17	1	J	11/10/2016 14:02	11/10/2016 14:02	RLD	EPA 8260C
Trichlorofluoromethane	<0.090	ug/L	0.090	0.14	1	U	11/10/2016 14:02	11/10/2016 14:02	RLD	EPA 8260C
Vinyl acetate	<0.22	ug/L	0.22	0.73	1	U	11/10/2016 14:02	11/10/2016 14:02	RLD	EPA 8260C
Vinyl chloride	<0.019	ug/L	0.019	0.064	1	U	11/10/2016 14:02	11/10/2016 14:02	RLD	EPA 8260C
1,4-Dioxane	<7.0	ug/L	7.0	23	1	U	11/10/2016 14:02	11/10/2016 14:02	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

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Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications

Kansas NELAP ID# E-10368
Kentucky ID# 0023
ISO/IEC 17025-2005 A2LA Cert # 3806.01
North Carolina ID# 674
Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID E871111, Expires Annually
Louisiana ID # 115843
Virginia ID# 7608
Illinois NELAP ID # 002413
Wisconsin (WOSB) ID# WI-5499-WBE
Maryland ID# 344

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase:
 Project #: 117-7413001.01
 Folder #: 123429
 Purchase Order #:
 Contract #: 2747

Page 1 of 2
 Arrival Temperature: 3.5
 Report Date: 11/30/2016
 Date Received: 11/04/2016
 Reprint Date: 11/30/2016

CT LAB#: 800745	Sample Description: MW-1S	DNR License/Well #: 4189/001	Sampled: 11/03/2016 1250
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Metals Results										
Dissolved Iron	0.532	mg/L	0.059	0.20	1		11/08/2016 22:26	11/08/2016 22:26	NAH	EPA 6010C
Dissolved Manganese	96.9	ug/L	2.2	7.3	1		11/08/2016 22:26	11/08/2016 22:26	NAH	EPA 6010C

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Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

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Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

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Kansas NELAP ID# E-10368
 Kentucky ID# 0023
 ISO/IEC 17025-2005 A2LA Cert # 3806.01
 North Carolina ID# 674
 Wisconsin (WDNR) Chemistry ID# 157066030
 Wisconsin (DATCP) Bacteriology ID# 105-289
 DoD-ELAP A2LA 3806.01
 GA EPD Stipulation ID E8711111, Expires Annually
 Louisiana ID # 115843
 Virginia ID# 7608
 Illinois NELAP ID # 002413
 Wisconsin (WOSB) ID# WI-5499-WBE
 Maryland ID# 344

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase:
 Project #: 117-7413001.01
 Folder #: 123429
 Purchase Order #:
 Contract #: 2747

Page 1 of 5
 Arrival Temperature: 3.5
 Report Date: 11/30/2016
 Date Received: 11/04/2016
 Reprint Date: 11/30/2016

CT LAB#: 800746	Sample Description: MW-14DR	DNR License/Well #: 4189/050	Sampled: 11/03/2016 1355
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Field Results										
Dissolved Oxygen (Field)	0	mg/L	N/A	N/A	1			11/03/2016 00:00	BMS	
Depth to Groundwater (Field)	4.18	Feet	N/A	N/A	1			11/03/2016 00:00	BMS	
OX/REDOX (Field)	105	MV	N/A	N/A	1			11/03/2016 00:00	BMS	
Color (Field)	CLEAR		N/A	N/A	1			11/03/2016 00:00	BMS	FIELD
Conductivity (Field)	1000	umhos/cm	N/A	N/A	1			11/03/2016 00:00	BMS	FIELD
Groundwater Elevation (Field)	846.82	Feet MSL	N/A	N/A	1			11/03/2016 00:00	BMS	FIELD
pH (Field)	7.16	S.U.	N/A	N/A	1			11/03/2016 00:00	BMS	FIELD
Temperature (Field)	7.40	Deg. C	N/A	N/A	1			11/03/2016 00:00	BMS	FIELD
Turbidity (Field)	CLEAR		N/A	N/A	1			11/03/2016 00:00	BMS	FIELD
Inorganic Results										
Alkalinity Total	360	mg/L	5.0	18	1			11/11/2016 10:55	SAW	EPA 310.2
Total Chloride	160	mg/L	2.1	7.2	3			11/04/2016 19:36	JJF	EPA 9056A
Total Sulfate	25	mg/L	3.0	9.6	3			11/04/2016 19:36	JJF	EPA 9056A
Total Organic Carbon	2.2	mg/L	0.50	1.7	1			11/07/2016 21:50	JJF	EPA 9060A
Metals Results										

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

The depth to groundwater and groundwater elevation results listed above are from a previous sampling round and therefore incorrect.

CT LAB#: 800746 Sample Description:MW-14DR

DNR License/Well #: 4189/050

Sampled: 11/03/2016 1355

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Total Iron	0.0897	mg/L	0.034	0.11	1	J	11/08/2016 15:00	11/09/2016 19:05	NAH	EPA 6010C
Total Manganese	233	ug/L	3.4	11	1		11/08/2016 15:00	11/09/2016 19:05	NAH	EPA 6010C
Organic Results										
Acetylene	<0.23	ug/L	0.23	0.77	1	U	11/10/2016 09:00	11/11/2016 16:40	agk	Mod RSK 175
Ethane	<0.40	ug/L	0.40	1.2	1	U	11/10/2016 09:00	11/11/2016 16:40	agk	Mod RSK 175
Ethene	<0.50	ug/L	0.50	1.8	1	U	11/10/2016 09:00	11/11/2016 16:40	agk	Mod RSK 175
Methane	0.44	ug/L	0.40	1.2	1	J	11/10/2016 09:00	11/11/2016 16:40	agk	Mod RSK 175
1,1,1,2-Tetrachloroethane	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 14:31	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.050	ug/L	0.050	0.17	1	U		11/10/2016 14:31	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.017	ug/L	0.017	0.057	1	U		11/10/2016 14:31	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.050	ug/L	0.050	0.16	1	U		11/10/2016 14:31	RLD	EPA 8260C
1,1-Dichloroethane	<0.060	ug/L	0.060	0.19	1	U		11/10/2016 14:31	RLD	EPA 8260C
1,1-Dichloroethene	<0.060	ug/L	0.060	0.20	1	U		11/10/2016 14:31	RLD	EPA 8260C
1,1-Dichloropropene	<0.060	ug/L	0.060	0.19	1	U		11/10/2016 14:31	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 14:31	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.040	ug/L	0.040	0.14	1	U		11/10/2016 14:31	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.040	ug/L	0.040	0.12	1	U		11/10/2016 14:31	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.040	ug/L	0.040	0.12	1	U		11/10/2016 14:31	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.090	ug/L	0.090	0.29	1	U		11/10/2016 14:31	RLD	EPA 8260C
1,2-Dibromoethane	<0.070	ug/L	0.070	0.23	1	U		11/10/2016 14:31	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 14:31	RLD	EPA 8260C
1,2-Dichloroethane	<0.050	ug/L	0.050	0.18	1	U		11/10/2016 14:31	RLD	EPA 8260C
1,2-Dichloropropane	<0.070	ug/L	0.070	0.23	1	U		11/10/2016 14:31	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<0.050	ug/L	0.050	0.16	1	U		11/10/2016 14:31	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 14:31	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 800746 Sample Description:MW-14DR

DNR License/Well #: 4189/050

Sampled: 11/03/2016 1355

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,3-Dichloropropane	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 14:31	RLD	EPA 8260C
1,4-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 14:31	RLD	EPA 8260C
2,2-Dichloropropane	<0.050	ug/L	0.050	0.15	1	U		11/10/2016 14:31	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.5	1	U		11/10/2016 14:31	RLD	EPA 8260C
2-Chlorotoluene	<0.030	ug/L	0.030	0.11	1	U		11/10/2016 14:31	RLD	EPA 8260C
2-Hexanone	<0.24	ug/L	0.24	0.81	1	U		11/10/2016 14:31	RLD	EPA 8260C
4-Chlorotoluene	<0.040	ug/L	0.040	0.12	1	U		11/10/2016 14:31	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.24	ug/L	0.24	0.82	1	U		11/10/2016 14:31	RLD	EPA 8260C
Acetone	<0.30	ug/L	0.30	1.0	1	U		11/10/2016 14:31	RLD	EPA 8260C
Benzene	<0.018	ug/L	0.018	0.059	1	U		11/10/2016 14:31	RLD	EPA 8260C
Bromobenzene	<0.040	ug/L	0.040	0.15	1	U		11/10/2016 14:31	RLD	EPA 8260C
Bromochloromethane	<0.030	ug/L	0.030	0.099	1	U		11/10/2016 14:31	RLD	EPA 8260C
Bromodichloromethane	<0.016	ug/L	0.016	0.054	1	U		11/10/2016 14:31	RLD	EPA 8260C
Bromoform	<0.040	ug/L	0.040	0.12	1	U Z		11/10/2016 14:31	RLD	EPA 8260C
Bromomethane	<0.080	ug/L	0.080	0.28	1	U		11/10/2016 14:31	RLD	EPA 8260C
Carbon disulfide	<0.070	ug/L	0.070	0.25	1	U		11/10/2016 14:31	RLD	EPA 8260C
Carbon tetrachloride	<0.050	ug/L	0.050	0.18	1	U		11/10/2016 14:31	RLD	EPA 8260C
Chlorobenzene	<0.040	ug/L	0.040	0.15	1	U		11/10/2016 14:31	RLD	EPA 8260C
Chloroethane	<0.070	ug/L	0.070	0.23	1	U		11/10/2016 14:31	RLD	EPA 8260C
Chloroform	<0.030	ug/L	0.030	0.11	1	U		11/10/2016 14:31	RLD	EPA 8260C
Chloromethane	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 14:31	RLD	EPA 8260C
cis-1,2-Dichloroethene	<0.070	ug/L	0.070	0.23	1	U		11/10/2016 14:31	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.011	ug/L	0.011	0.038	1	U		11/10/2016 14:31	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1	U		11/10/2016 14:31	RLD	EPA 8260C
Dibromomethane	<0.050	ug/L	0.050	0.17	1	U		11/10/2016 14:31	RLD	EPA 8260C
Dichlorodifluoromethane	<0.060	ug/L	0.060	0.19	1	U		11/10/2016 14:31	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 800746 Sample Description:MW-14DR

DNR License/Well #: 4189/050

Sampled: 11/03/2016 1355

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Diisopropyl ether	<0.040	ug/L	0.040	0.14	1	U	11/10/2016 14:31	11/10/2016 14:31	RLD	EPA 8260C
Ethylbenzene	<0.040	ug/L	0.040	0.15	1	U	11/10/2016 14:31	11/10/2016 14:31	RLD	EPA 8260C
Hexachlorobutadiene	<0.050	ug/L	0.050	0.16	1	U	11/10/2016 14:31	11/10/2016 14:31	RLD	EPA 8260C
Isopropylbenzene	<0.040	ug/L	0.040	0.12	1	U	11/10/2016 14:31	11/10/2016 14:31	RLD	EPA 8260C
m & p-Xylene	<0.070	ug/L	0.070	0.23	1	U	11/10/2016 14:31	11/10/2016 14:31	RLD	EPA 8260C
Methyl tert-butyl ether	<0.040	ug/L	0.040	0.12	1	U	11/10/2016 14:31	11/10/2016 14:31	RLD	EPA 8260C
Methylene chloride	<0.050	ug/L	0.050	0.16	1	U	11/10/2016 14:31	11/10/2016 14:31	RLD	EPA 8260C
n-Butylbenzene	<0.030	ug/L	0.030	0.11	1	U	11/10/2016 14:31	11/10/2016 14:31	RLD	EPA 8260C
n-Propylbenzene	<0.040	ug/L	0.040	0.13	1	U	11/10/2016 14:31	11/10/2016 14:31	RLD	EPA 8260C
Naphthalene	<0.030	ug/L	0.030	0.10	1	U	11/10/2016 14:31	11/10/2016 14:31	RLD	EPA 8260C
o-Xylene	<0.040	ug/L	0.040	0.14	1	U	11/10/2016 14:31	11/10/2016 14:31	RLD	EPA 8260C
p-Isopropyltoluene	<0.040	ug/L	0.040	0.13	1	U	11/10/2016 14:31	11/10/2016 14:31	RLD	EPA 8260C
sec-Butylbenzene	<0.050	ug/L	0.050	0.16	1	U	11/10/2016 14:31	11/10/2016 14:31	RLD	EPA 8260C
Styrene	<0.030	ug/L	0.030	0.11	1	U	11/10/2016 14:31	11/10/2016 14:31	RLD	EPA 8260C
tert-Butylbenzene	<0.040	ug/L	0.040	0.14	1	U	11/10/2016 14:31	11/10/2016 14:31	RLD	EPA 8260C
Tetrachloroethene	<0.050	ug/L	0.050	0.18	1	U	11/10/2016 14:31	11/10/2016 14:31	RLD	EPA 8260C
Tetrahydrofuran	<0.40	ug/L	0.40	1.5	1	U	11/10/2016 14:31	11/10/2016 14:31	RLD	EPA 8260C
Toluene	<0.040	ug/L	0.040	0.13	1	U	11/10/2016 14:31	11/10/2016 14:31	RLD	EPA 8260C
trans-1,2-Dichloroethene	<0.040	ug/L	0.040	0.14	1	U	11/10/2016 14:31	11/10/2016 14:31	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.019	ug/L	0.019	0.063	1	U	11/10/2016 14:31	11/10/2016 14:31	RLD	EPA 8260C
Trichloroethene	0.061	ug/L	0.050	0.17	1	J	11/10/2016 14:31	11/10/2016 14:31	RLD	EPA 8260C
Trichlorofluoromethane	<0.090	ug/L	0.090	0.14	1	U	11/10/2016 14:31	11/10/2016 14:31	RLD	EPA 8260C
Vinyl acetate	<0.22	ug/L	0.22	0.73	1	U	11/10/2016 14:31	11/10/2016 14:31	RLD	EPA 8260C
Vinyl chloride	<0.019	ug/L	0.019	0.064	1	U	11/10/2016 14:31	11/10/2016 14:31	RLD	EPA 8260C
1,4-Dioxane	<7.0	ug/L	7.0	23	1	U	11/10/2016 14:31	11/10/2016 14:31	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

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Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications
Kansas NELAP ID# E-10368
Kentucky ID# 0023
ISO/IEC 17025-2005 A2LA Cert # 3806.01
North Carolina ID# 674
Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID E8711111, Expires Annually
Louisiana ID # 115843
Virginia ID# 7608
Illinois NELAP ID # 002413
Wisconsin (WOSB) ID# WI-5499-WBE
Maryland ID# 344

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase:
 Project #: 117-7413001.01
 Folder #: 123429
 Purchase Order #:
 Contract #: 2747

Page 1 of 2
 Arrival Temperature: 3.5
 Report Date: 11/30/2016
 Date Received: 11/04/2016
 Reprint Date: 11/30/2016

CT LAB#: 800747	Sample Description: MW-14DR	DNR License/Well #: 4189/050	Sampled: 11/03/2016 1355
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Metals Results										
Dissolved Iron	<0.059	mg/L	0.059	0.20	1	U		11/08/2016 22:34	NAH	EPA 6010C
Dissolved Manganese	128	ug/L	2.2	7.3	1			11/08/2016 22:34	NAH	EPA 6010C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications
Kansas NELAP ID# E-10368
Kentucky ID# 0023
ISO/IEC 17025-2005 A2LA Cert # 3806.01
North Carolina ID# 674
Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID E871111, Expires Annually
Louisiana ID # 115843
Virginia ID# 7608
Illinois NELAP ID # 002413
Wisconsin (WOSB) ID# WI-5499-WBE
Maryland ID# 344

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase:
 Project #: 117-7413001.01
 Folder #: 123429
 Purchase Order #:
 Contract #: 2747

Page 1 of 5
 Arrival Temperature: 3.5
 Report Date: 11/30/2016
 Date Received: 11/04/2016
 Reprint Date: 11/30/2016

CT LAB#: 800748	Sample Description: MW-101B	DNR License/Well #: 4189/036	Sampled: 11/03/2016 1445
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Field Results										
Dissolved Oxygen (Field)	0	mg/L	N/A	N/A	1			11/03/2016 00:00	BMS	
Depth to Groundwater (Field)	4.60	Feet	N/A	N/A	1			11/03/2016 00:00	BMS	
OX/REDOX (Field)	38	MV	N/A	N/A	1			11/03/2016 00:00	BMS	
Color (Field)	CLEAR		N/A	N/A	1			11/03/2016 00:00	BMS	FIELD
Conductivity (Field)	999	umhos/cm	N/A	N/A	1			11/03/2016 00:00	BMS	FIELD
Groundwater Elevation (Field)	846.48	Feet MSL	N/A	N/A	1			11/03/2016 00:00	BMS	FIELD
pH (Field)	7.26	S.U.	N/A	N/A	1			11/03/2016 00:00	BMS	FIELD
Temperature (Field)	8.81	Deg. C	N/A	N/A	1			11/03/2016 00:00	BMS	FIELD
Turbidity (Field)	CLEAR		N/A	N/A	1			11/03/2016 00:00	BMS	FIELD
Inorganic Results										
Alkalinity Total	370	mg/L	5.0	18	1			11/11/2016 10:56	SAW	EPA 310.2
Total Chloride	160	mg/L	2.1	7.2	3			11/04/2016 19:57	JJF	EPA 9056A
Total Sulfate	35	mg/L	3.0	9.6	3			11/04/2016 19:57	JJF	EPA 9056A
Total Organic Carbon	1.2	mg/L	0.50	1.7	1	J		11/07/2016 22:02	JJF	EPA 9060A
Metals Results										

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

The depth to groundwater and groundwater elevation results listed above are from a previous sampling round and therefore incorrect.

CT LAB#: 800748 Sample Description: MW-101B

DNR License/Well #: 4189/036

Sampled: 11/03/2016 1445

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Total Iron	<0.034	mg/L	0.034	0.11	1	U	11/08/2016 15:00	11/09/2016 19:12	NAH	EPA 6010C
Total Manganese	90.3	ug/L	3.4	11	1		11/08/2016 15:00	11/09/2016 19:12	NAH	EPA 6010C
Organic Results										
Acetylene	<0.23	ug/L	0.23	0.77	1	U	11/10/2016 09:00	11/14/2016 09:18	agk	Mod RSK 175
Ethane	<0.40	ug/L	0.40	1.2	1	U	11/10/2016 09:00	11/14/2016 09:18	agk	Mod RSK 175
Ethene	<0.50	ug/L	0.50	1.8	1	U	11/10/2016 09:00	11/14/2016 09:18	agk	Mod RSK 175
Methane	170	ug/L	8.0	24	20		11/10/2016 09:00	11/14/2016 09:37	AGK	Mod RSK 175
1,1,1,2-Tetrachloroethane	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 15:00	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.050	ug/L	0.050	0.17	1	U		11/10/2016 15:00	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.017	ug/L	0.017	0.057	1	U		11/10/2016 15:00	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.050	ug/L	0.050	0.16	1	U		11/10/2016 15:00	RLD	EPA 8260C
1,1-Dichloroethane	<0.060	ug/L	0.060	0.19	1	U		11/10/2016 15:00	RLD	EPA 8260C
1,1-Dichloroethene	<0.060	ug/L	0.060	0.20	1	U		11/10/2016 15:00	RLD	EPA 8260C
1,1-Dichloropropene	<0.060	ug/L	0.060	0.19	1	U		11/10/2016 15:00	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 15:00	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.040	ug/L	0.040	0.14	1	U		11/10/2016 15:00	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.040	ug/L	0.040	0.12	1	U		11/10/2016 15:00	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.040	ug/L	0.040	0.12	1	U		11/10/2016 15:00	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.090	ug/L	0.090	0.29	1	U		11/10/2016 15:00	RLD	EPA 8260C
1,2-Dibromoethane	<0.070	ug/L	0.070	0.23	1	U		11/10/2016 15:00	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 15:00	RLD	EPA 8260C
1,2-Dichloroethane	<0.050	ug/L	0.050	0.18	1	U		11/10/2016 15:00	RLD	EPA 8260C
1,2-Dichloropropane	<0.070	ug/L	0.070	0.23	1	U		11/10/2016 15:00	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<0.050	ug/L	0.050	0.16	1	U		11/10/2016 15:00	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 15:00	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

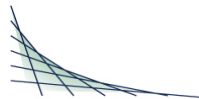
CT LAB#: 800748 Sample Description:MW-101B

DNR License/Well #: 4189/036

Sampled: 11/03/2016 1445

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,3-Dichloropropane	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 15:00	RLD	EPA 8260C
1,4-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 15:00	RLD	EPA 8260C
2,2-Dichloropropane	<0.050	ug/L	0.050	0.15	1	U		11/10/2016 15:00	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.5	1	U		11/10/2016 15:00	RLD	EPA 8260C
2-Chlorotoluene	<0.030	ug/L	0.030	0.11	1	U		11/10/2016 15:00	RLD	EPA 8260C
2-Hexanone	<0.24	ug/L	0.24	0.81	1	U		11/10/2016 15:00	RLD	EPA 8260C
4-Chlorotoluene	<0.040	ug/L	0.040	0.12	1	U		11/10/2016 15:00	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.24	ug/L	0.24	0.82	1	U		11/10/2016 15:00	RLD	EPA 8260C
Acetone	<0.30	ug/L	0.30	1.0	1	U		11/10/2016 15:00	RLD	EPA 8260C
Benzene	<0.018	ug/L	0.018	0.059	1	U		11/10/2016 15:00	RLD	EPA 8260C
Bromobenzene	<0.040	ug/L	0.040	0.15	1	U		11/10/2016 15:00	RLD	EPA 8260C
Bromochloromethane	<0.030	ug/L	0.030	0.099	1	U		11/10/2016 15:00	RLD	EPA 8260C
Bromodichloromethane	<0.016	ug/L	0.016	0.054	1	U		11/10/2016 15:00	RLD	EPA 8260C
Bromoform	<0.040	ug/L	0.040	0.12	1	U Z		11/10/2016 15:00	RLD	EPA 8260C
Bromomethane	<0.080	ug/L	0.080	0.28	1	U		11/10/2016 15:00	RLD	EPA 8260C
Carbon disulfide	<0.070	ug/L	0.070	0.25	1	U		11/10/2016 15:00	RLD	EPA 8260C
Carbon tetrachloride	<0.050	ug/L	0.050	0.18	1	U		11/10/2016 15:00	RLD	EPA 8260C
Chlorobenzene	<0.040	ug/L	0.040	0.15	1	U		11/10/2016 15:00	RLD	EPA 8260C
Chloroethane	<0.070	ug/L	0.070	0.23	1	U		11/10/2016 15:00	RLD	EPA 8260C
Chloroform	<0.030	ug/L	0.030	0.11	1	U		11/10/2016 15:00	RLD	EPA 8260C
Chloromethane	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 15:00	RLD	EPA 8260C
cis-1,2-Dichloroethene	0.47	ug/L	0.070	0.23	1			11/10/2016 15:00	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.011	ug/L	0.011	0.038	1	U		11/10/2016 15:00	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1	U		11/10/2016 15:00	RLD	EPA 8260C
Dibromomethane	<0.050	ug/L	0.050	0.17	1	U		11/10/2016 15:00	RLD	EPA 8260C
Dichlorodifluoromethane	<0.060	ug/L	0.060	0.19	1	U		11/10/2016 15:00	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis



CT LAB#: 800748 Sample Description:MW-101B

DNR License/Well #: 4189/036

Sampled: 11/03/2016 1445

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Diisopropyl ether	<0.040	ug/L	0.040	0.14	1	U		11/10/2016 15:00	RLD	EPA 8260C
Ethylbenzene	<0.040	ug/L	0.040	0.15	1	U		11/10/2016 15:00	RLD	EPA 8260C
Hexachlorobutadiene	<0.050	ug/L	0.050	0.16	1	U		11/10/2016 15:00	RLD	EPA 8260C
Isopropylbenzene	<0.040	ug/L	0.040	0.12	1	U		11/10/2016 15:00	RLD	EPA 8260C
m & p-Xylene	<0.070	ug/L	0.070	0.23	1	U		11/10/2016 15:00	RLD	EPA 8260C
Methyl tert-butyl ether	0.24	ug/L	0.040	0.12	1			11/10/2016 15:00	RLD	EPA 8260C
Methylene chloride	<0.050	ug/L	0.050	0.16	1	U		11/10/2016 15:00	RLD	EPA 8260C
n-Butylbenzene	<0.030	ug/L	0.030	0.11	1	U		11/10/2016 15:00	RLD	EPA 8260C
n-Propylbenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 15:00	RLD	EPA 8260C
Naphthalene	<0.030	ug/L	0.030	0.10	1	U		11/10/2016 15:00	RLD	EPA 8260C
o-Xylene	<0.040	ug/L	0.040	0.14	1	U		11/10/2016 15:00	RLD	EPA 8260C
p-Isopropyltoluene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 15:00	RLD	EPA 8260C
sec-Butylbenzene	<0.050	ug/L	0.050	0.16	1	U		11/10/2016 15:00	RLD	EPA 8260C
Styrene	<0.030	ug/L	0.030	0.11	1	U		11/10/2016 15:00	RLD	EPA 8260C
tert-Butylbenzene	<0.040	ug/L	0.040	0.14	1	U		11/10/2016 15:00	RLD	EPA 8260C
Tetrachloroethene	<0.050	ug/L	0.050	0.18	1	U		11/10/2016 15:00	RLD	EPA 8260C
Tetrahydrofuran	<0.40	ug/L	0.40	1.5	1	U		11/10/2016 15:00	RLD	EPA 8260C
Toluene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 15:00	RLD	EPA 8260C
trans-1,2-Dichloroethene	0.047	ug/L	0.040	0.14	1	J		11/10/2016 15:00	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.019	ug/L	0.019	0.063	1	U		11/10/2016 15:00	RLD	EPA 8260C
Trichloroethene	<0.050	ug/L	0.050	0.17	1	U		11/10/2016 15:00	RLD	EPA 8260C
Trichlorofluoromethane	<0.090	ug/L	0.090	0.14	1	U		11/10/2016 15:00	RLD	EPA 8260C
Vinyl acetate	<0.22	ug/L	0.22	0.73	1	U		11/10/2016 15:00	RLD	EPA 8260C
Vinyl chloride	<0.019	ug/L	0.019	0.064	1	U		11/10/2016 15:00	RLD	EPA 8260C
1,4-Dioxane	<7.0	ug/L	7.0	23	1	U		11/10/2016 15:00	RLD	EPA 8260C

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Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

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Louisiana ID # 115843
Virginia ID# 7608
Illinois NELAP ID # 002413
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Maryland ID# 344

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase:
 Project #: 117-7413001.01
 Folder #: 123429
 Purchase Order #:
 Contract #: 2747

Page 1 of 2
 Arrival Temperature: 3.5
 Report Date: 11/30/2016
 Date Received: 11/04/2016
 Reprint Date: 11/30/2016

CT LAB#: 800749	Sample Description: MW-101B	DNR License/Well #: 4189/036	Sampled: 11/03/2016 1445
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Metals Results										
Dissolved Iron	<0.059	mg/L	0.059	0.20	1	U		11/08/2016 22:41	NAH	EPA 6010C
Dissolved Manganese	111	ug/L	2.2	7.3	1			11/08/2016 22:41	NAH	EPA 6010C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

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Kentucky ID# 0023
ISO/IEC 17025-2005 A2LA Cert # 3806.01
North Carolina ID# 674
Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID E871111, Expires Annually
Louisiana ID # 115843
Virginia ID# 7608
Illinois NELAP ID # 002413
Wisconsin (WOSB) ID# WI-5499-WBE
Maryland ID# 344

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase:
 Project #: 117-7413001.01
 Folder #: 123429
 Purchase Order #:
 Contract #: 2747

Page 1 of 5
 Arrival Temperature: 3.5
 Report Date: 11/30/2016
 Date Received: 11/04/2016
 Reprint Date: 11/30/2016

CT LAB#: 800750	Sample Description: MW-101S	DNR License/Well #: 4189/035	Sampled: 11/03/2016 1515
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Field Results										
Dissolved Oxygen (Field)	2.88	mg/L	N/A	N/A	1			11/03/2016 00:00	BMS	
Depth to Groundwater (Field)	3.74	Feet	N/A	N/A	1			11/03/2016 00:00	BMS	
OX/REDOX (Field)	121	MV	N/A	N/A	1			11/03/2016 00:00	BMS	
Color (Field)	CLEAR		N/A	N/A	1			11/03/2016 00:00	BMS	FIELD
Conductivity (Field)	374	umhos/cm	N/A	N/A	1			11/03/2016 00:00	BMS	FIELD
Groundwater Elevation (Field)	847.50	Feet MSL	N/A	N/A	1			11/03/2016 00:00	BMS	FIELD
pH (Field)	7.02	S.U.	N/A	N/A	1			11/03/2016 00:00	BMS	FIELD
Temperature (Field)	13.67	Deg. C	N/A	N/A	1			11/03/2016 00:00	BMS	FIELD
Turbidity (Field)	CLEAR		N/A	N/A	1			11/03/2016 00:00	BMS	FIELD
Inorganic Results										
Alkalinity Total	260	mg/L	5.0	18	1			11/11/2016 10:57	SAW	EPA 310.2
Total Chloride	28	mg/L	0.70	2.4	1			11/04/2016 22:22	JJF	EPA 9056A
Total Sulfate	7.5	mg/L	1.0	3.2	1			11/04/2016 22:22	JJF	EPA 9056A
Total Organic Carbon	4.1	mg/L	0.50	1.7	1			11/07/2016 22:14	JJF	EPA 9060A
Metals Results										

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

The depth to groundwater and groundwater elevation results listed above are from a previous sampling round and therefore incorrect.

CT LAB#: 800750 Sample Description:MW-101S

DNR License/Well #: 4189/035

Sampled: 11/03/2016 1515

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Total Iron	0.172	mg/L	0.034	0.11	1		11/08/2016 15:00	11/09/2016 19:19	NAH	EPA 6010C
Total Manganese	224	ug/L	3.4	11	1		11/08/2016 15:00	11/09/2016 19:19	NAH	EPA 6010C
Organic Results										
Acetylene	<0.23	ug/L	0.23	0.77	1	U	11/10/2016 09:00	11/14/2016 09:50	agk	Mod RSK 175
Ethane	<0.40	ug/L	0.40	1.2	1	U	11/10/2016 09:00	11/14/2016 09:50	agk	Mod RSK 175
Ethene	<0.50	ug/L	0.50	1.8	1	U	11/10/2016 09:00	11/14/2016 09:50	agk	Mod RSK 175
Methane	<0.40	ug/L	0.40	1.2	1	U	11/10/2016 09:00	11/14/2016 09:50	agk	Mod RSK 175
1,1,1,2-Tetrachloroethane	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 15:29	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.050	ug/L	0.050	0.17	1	U		11/10/2016 15:29	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.017	ug/L	0.017	0.057	1	U		11/10/2016 15:29	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.050	ug/L	0.050	0.16	1	U		11/10/2016 15:29	RLD	EPA 8260C
1,1-Dichloroethane	<0.060	ug/L	0.060	0.19	1	U		11/10/2016 15:29	RLD	EPA 8260C
1,1-Dichloroethene	<0.060	ug/L	0.060	0.20	1	U		11/10/2016 15:29	RLD	EPA 8260C
1,1-Dichloropropene	<0.060	ug/L	0.060	0.19	1	U		11/10/2016 15:29	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 15:29	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.040	ug/L	0.040	0.14	1	U		11/10/2016 15:29	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.040	ug/L	0.040	0.12	1	U		11/10/2016 15:29	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.040	ug/L	0.040	0.12	1	U		11/10/2016 15:29	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.090	ug/L	0.090	0.29	1	U		11/10/2016 15:29	RLD	EPA 8260C
1,2-Dibromoethane	<0.070	ug/L	0.070	0.23	1	U		11/10/2016 15:29	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 15:29	RLD	EPA 8260C
1,2-Dichloroethane	<0.050	ug/L	0.050	0.18	1	U		11/10/2016 15:29	RLD	EPA 8260C
1,2-Dichloropropane	<0.070	ug/L	0.070	0.23	1	U		11/10/2016 15:29	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<0.050	ug/L	0.050	0.16	1	U		11/10/2016 15:29	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 15:29	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 800750 Sample Description:MW-101S

DNR License/Well #: 4189/035

Sampled: 11/03/2016 1515

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,3-Dichloropropane	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 15:29	RLD	EPA 8260C
1,4-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 15:29	RLD	EPA 8260C
2,2-Dichloropropane	<0.050	ug/L	0.050	0.15	1	U		11/10/2016 15:29	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.5	1	U		11/10/2016 15:29	RLD	EPA 8260C
2-Chlorotoluene	<0.030	ug/L	0.030	0.11	1	U		11/10/2016 15:29	RLD	EPA 8260C
2-Hexanone	<0.24	ug/L	0.24	0.81	1	U		11/10/2016 15:29	RLD	EPA 8260C
4-Chlorotoluene	<0.040	ug/L	0.040	0.12	1	U		11/10/2016 15:29	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.24	ug/L	0.24	0.82	1	U		11/10/2016 15:29	RLD	EPA 8260C
Acetone	<0.30	ug/L	0.30	1.0	1	U		11/10/2016 15:29	RLD	EPA 8260C
Benzene	<0.018	ug/L	0.018	0.059	1	U		11/10/2016 15:29	RLD	EPA 8260C
Bromobenzene	<0.040	ug/L	0.040	0.15	1	U		11/10/2016 15:29	RLD	EPA 8260C
Bromochloromethane	<0.030	ug/L	0.030	0.099	1	U		11/10/2016 15:29	RLD	EPA 8260C
Bromodichloromethane	<0.016	ug/L	0.016	0.054	1	U		11/10/2016 15:29	RLD	EPA 8260C
Bromoform	<0.040	ug/L	0.040	0.12	1	U Z		11/10/2016 15:29	RLD	EPA 8260C
Bromomethane	<0.080	ug/L	0.080	0.28	1	U		11/10/2016 15:29	RLD	EPA 8260C
Carbon disulfide	<0.070	ug/L	0.070	0.25	1	U		11/10/2016 15:29	RLD	EPA 8260C
Carbon tetrachloride	<0.050	ug/L	0.050	0.18	1	U		11/10/2016 15:29	RLD	EPA 8260C
Chlorobenzene	<0.040	ug/L	0.040	0.15	1	U		11/10/2016 15:29	RLD	EPA 8260C
Chloroethane	<0.070	ug/L	0.070	0.23	1	U		11/10/2016 15:29	RLD	EPA 8260C
Chloroform	<0.030	ug/L	0.030	0.11	1	U		11/10/2016 15:29	RLD	EPA 8260C
Chloromethane	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 15:29	RLD	EPA 8260C
cis-1,2-Dichloroethene	<0.070	ug/L	0.070	0.23	1	U		11/10/2016 15:29	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.011	ug/L	0.011	0.038	1	U		11/10/2016 15:29	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1	U		11/10/2016 15:29	RLD	EPA 8260C
Dibromomethane	<0.050	ug/L	0.050	0.17	1	U		11/10/2016 15:29	RLD	EPA 8260C
Dichlorodifluoromethane	<0.060	ug/L	0.060	0.19	1	U		11/10/2016 15:29	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 800750 Sample Description:MW-101S

DNR License/Well #: 4189/035

Sampled: 11/03/2016 1515

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Diisopropyl ether	<0.040	ug/L	0.040	0.14	1	U	11/10/2016 15:29	11/10/2016 15:29	RLD	EPA 8260C
Ethylbenzene	<0.040	ug/L	0.040	0.15	1	U	11/10/2016 15:29	11/10/2016 15:29	RLD	EPA 8260C
Hexachlorobutadiene	<0.050	ug/L	0.050	0.16	1	U	11/10/2016 15:29	11/10/2016 15:29	RLD	EPA 8260C
Isopropylbenzene	<0.040	ug/L	0.040	0.12	1	U	11/10/2016 15:29	11/10/2016 15:29	RLD	EPA 8260C
m & p-Xylene	<0.070	ug/L	0.070	0.23	1	U	11/10/2016 15:29	11/10/2016 15:29	RLD	EPA 8260C
Methyl tert-butyl ether	<0.040	ug/L	0.040	0.12	1	U	11/10/2016 15:29	11/10/2016 15:29	RLD	EPA 8260C
Methylene chloride	<0.050	ug/L	0.050	0.16	1	U	11/10/2016 15:29	11/10/2016 15:29	RLD	EPA 8260C
n-Butylbenzene	<0.030	ug/L	0.030	0.11	1	U	11/10/2016 15:29	11/10/2016 15:29	RLD	EPA 8260C
n-Propylbenzene	<0.040	ug/L	0.040	0.13	1	U	11/10/2016 15:29	11/10/2016 15:29	RLD	EPA 8260C
Naphthalene	<0.030	ug/L	0.030	0.10	1	U	11/10/2016 15:29	11/10/2016 15:29	RLD	EPA 8260C
o-Xylene	<0.040	ug/L	0.040	0.14	1	U	11/10/2016 15:29	11/10/2016 15:29	RLD	EPA 8260C
p-Isopropyltoluene	<0.040	ug/L	0.040	0.13	1	U	11/10/2016 15:29	11/10/2016 15:29	RLD	EPA 8260C
sec-Butylbenzene	<0.050	ug/L	0.050	0.16	1	U	11/10/2016 15:29	11/10/2016 15:29	RLD	EPA 8260C
Styrene	<0.030	ug/L	0.030	0.11	1	U	11/10/2016 15:29	11/10/2016 15:29	RLD	EPA 8260C
tert-Butylbenzene	<0.040	ug/L	0.040	0.14	1	U	11/10/2016 15:29	11/10/2016 15:29	RLD	EPA 8260C
Tetrachloroethene	<0.050	ug/L	0.050	0.18	1	U	11/10/2016 15:29	11/10/2016 15:29	RLD	EPA 8260C
Tetrahydrofuran	<0.40	ug/L	0.40	1.5	1	U	11/10/2016 15:29	11/10/2016 15:29	RLD	EPA 8260C
Toluene	<0.040	ug/L	0.040	0.13	1	U	11/10/2016 15:29	11/10/2016 15:29	RLD	EPA 8260C
trans-1,2-Dichloroethene	<0.040	ug/L	0.040	0.14	1	U	11/10/2016 15:29	11/10/2016 15:29	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.019	ug/L	0.019	0.063	1	U	11/10/2016 15:29	11/10/2016 15:29	RLD	EPA 8260C
Trichloroethene	<0.050	ug/L	0.050	0.17	1	U	11/10/2016 15:29	11/10/2016 15:29	RLD	EPA 8260C
Trichlorofluoromethane	<0.090	ug/L	0.090	0.14	1	U	11/10/2016 15:29	11/10/2016 15:29	RLD	EPA 8260C
Vinyl acetate	<0.22	ug/L	0.22	0.73	1	U	11/10/2016 15:29	11/10/2016 15:29	RLD	EPA 8260C
Vinyl chloride	<0.019	ug/L	0.019	0.064	1	U	11/10/2016 15:29	11/10/2016 15:29	RLD	EPA 8260C
1,4-Dioxane	<7.0	ug/L	7.0	23	1	U	11/10/2016 15:29	11/10/2016 15:29	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications
Kansas NELAP ID# E-10368
Kentucky ID# 0023
ISO/IEC 17025-2005 A2LA Cert # 3806.01
North Carolina ID# 674
Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID E8711111, Expires Annually
Louisiana ID # 115843
Virginia ID# 7608
Illinois NELAP ID # 002413
Wisconsin (WOSB) ID# WI-5499-WBE
Maryland ID# 344

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase:
 Project #: 117-7413001.01
 Folder #: 123429
 Purchase Order #:
 Contract #: 2747

Page 1 of 2
 Arrival Temperature: 3.5
 Report Date: 11/30/2016
 Date Received: 11/04/2016
 Reprint Date: 11/30/2016

CT LAB#: 800751	Sample Description: MW-101S	DNR License/Well #: 4189/035	Sampled: 11/03/2016 1515
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Metals Results										
Dissolved Iron	<0.059	mg/L	0.059	0.20	1	U		11/08/2016 22:48	NAH	EPA 6010C
Dissolved Manganese	<2.2	ug/L	2.2	7.3	1	U		11/08/2016 22:48	NAH	EPA 6010C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications
Kansas NELAP ID# E-10368
Kentucky ID# 0023
ISO/IEC 17025-2005 A2LA Cert # 3806.01
North Carolina ID# 674
Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID E8711111, Expires Annually
Louisiana ID # 115843
Virginia ID# 7608
Illinois NELAP ID # 002413
Wisconsin (WOSB) ID# WI-5499-WBE
Maryland ID# 344

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase:
 Project #: 117-7413001.01
 Folder #: 123429
 Purchase Order #:
 Contract #: 2747

Page 1 of 5
 Arrival Temperature: 3.5
 Report Date: 11/30/2016
 Date Received: 11/04/2016
 Reprint Date: 11/30/2016

CT LAB#: 800752	Sample Description: MW-102D	DNR License/Well #: 4189/038	Sampled: 11/03/2016 1615
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Field Results										
Dissolved Oxygen (Field)	0	mg/L	N/A	N/A	1			11/03/2016 00:00	BMS	
Depth to Groundwater (Field)	7.56	Feet	N/A	N/A	1			11/03/2016 00:00	BMS	
OX/REDOX (Field)	-87	MV	N/A	N/A	1			11/03/2016 00:00	BMS	
Color (Field)	CLEAR		N/A	N/A	1			11/03/2016 00:00	BMS	FIELD
Conductivity (Field)	1330	umhos/cm	N/A	N/A	1			11/03/2016 00:00	BMS	FIELD
Groundwater Elevation (Field)	846.14	Feet MSL	N/A	N/A	1			11/03/2016 00:00	BMS	FIELD
pH (Field)	7.20	S.U.	N/A	N/A	1			11/03/2016 00:00	BMS	FIELD
Temperature (Field)	11.12	Deg. C	N/A	N/A	1			11/03/2016 00:00	BMS	FIELD
Turbidity (Field)	CLEAR		N/A	N/A	1			11/03/2016 00:00	BMS	FIELD
Inorganic Results										
Alkalinity Total	480	mg/L	5.0	18	1			11/11/2016 10:58	SAW	EPA 310.2
Total Chloride	210	mg/L	2.8	9.6	4			11/04/2016 21:41	JJF	EPA 9056A
Total Sulfate	96	mg/L	4.0	13	4			11/04/2016 21:41	JJF	EPA 9056A
Total Organic Carbon	2.3	mg/L	0.50	1.7	1			11/07/2016 22:27	JJF	EPA 9060A
Metals Results										

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

The depth to groundwater and groundwater elevation results listed above are from a previous sampling round and therefore incorrect.

CT LAB#: 800752 Sample Description: MW-102D

DNR License/Well #: 4189/038

Sampled: 11/03/2016 1615

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Total Iron	1.67	mg/L	0.034	0.11	1		11/08/2016 15:00	11/09/2016 19:27	NAH	EPA 6010C
Total Manganese	40.2	ug/L	3.4	11	1		11/08/2016 15:00	11/09/2016 19:27	NAH	EPA 6010C
Organic Results										
Acetylene	<0.23	ug/L	0.23	0.77	1	U	11/10/2016 09:00	11/14/2016 10:00	agk	Mod RSK 175
Ethane	<0.40	ug/L	0.40	1.2	1	U	11/10/2016 09:00	11/14/2016 10:00	agk	Mod RSK 175
Ethene	<0.50	ug/L	0.50	1.8	1	U	11/10/2016 09:00	11/14/2016 10:00	agk	Mod RSK 175
Methane	8.8	ug/L	0.40	1.2	1		11/10/2016 09:00	11/14/2016 10:00	agk	Mod RSK 175
1,1,1,2-Tetrachloroethane	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 15:58	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.050	ug/L	0.050	0.17	1	U		11/10/2016 15:58	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.017	ug/L	0.017	0.057	1	U		11/10/2016 15:58	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.050	ug/L	0.050	0.16	1	U		11/10/2016 15:58	RLD	EPA 8260C
1,1-Dichloroethane	<0.060	ug/L	0.060	0.19	1	U		11/10/2016 15:58	RLD	EPA 8260C
1,1-Dichloroethene	0.090	ug/L	0.060	0.20	1	J		11/10/2016 15:58	RLD	EPA 8260C
1,1-Dichloropropene	<0.060	ug/L	0.060	0.19	1	U		11/10/2016 15:58	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 15:58	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.040	ug/L	0.040	0.14	1	U		11/10/2016 15:58	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.040	ug/L	0.040	0.12	1	U		11/10/2016 15:58	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.040	ug/L	0.040	0.12	1	U		11/10/2016 15:58	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.090	ug/L	0.090	0.29	1	U		11/10/2016 15:58	RLD	EPA 8260C
1,2-Dibromoethane	<0.070	ug/L	0.070	0.23	1	U		11/10/2016 15:58	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 15:58	RLD	EPA 8260C
1,2-Dichloroethane	0.26	ug/L	0.050	0.18	1			11/10/2016 15:58	RLD	EPA 8260C
1,2-Dichloropropane	<0.070	ug/L	0.070	0.23	1	U		11/10/2016 15:58	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<0.050	ug/L	0.050	0.16	1	U		11/10/2016 15:58	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 15:58	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 800752 Sample Description:MW-102D

DNR License/Well #: 4189/038

Sampled: 11/03/2016 1615

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,3-Dichloropropane	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 15:58	RLD	EPA 8260C
1,4-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 15:58	RLD	EPA 8260C
2,2-Dichloropropane	<0.050	ug/L	0.050	0.15	1	U		11/10/2016 15:58	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.5	1	U		11/10/2016 15:58	RLD	EPA 8260C
2-Chlorotoluene	<0.030	ug/L	0.030	0.11	1	U		11/10/2016 15:58	RLD	EPA 8260C
2-Hexanone	<0.24	ug/L	0.24	0.81	1	U		11/10/2016 15:58	RLD	EPA 8260C
4-Chlorotoluene	<0.040	ug/L	0.040	0.12	1	U		11/10/2016 15:58	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.24	ug/L	0.24	0.82	1	U		11/10/2016 15:58	RLD	EPA 8260C
Acetone	<0.30	ug/L	0.30	1.0	1	U		11/10/2016 15:58	RLD	EPA 8260C
Benzene	<0.018	ug/L	0.018	0.059	1	U		11/10/2016 15:58	RLD	EPA 8260C
Bromobenzene	<0.040	ug/L	0.040	0.15	1	U		11/10/2016 15:58	RLD	EPA 8260C
Bromochloromethane	<0.030	ug/L	0.030	0.099	1	U		11/10/2016 15:58	RLD	EPA 8260C
Bromodichloromethane	<0.016	ug/L	0.016	0.054	1	U		11/10/2016 15:58	RLD	EPA 8260C
Bromoform	<0.040	ug/L	0.040	0.12	1	U		11/10/2016 15:58	RLD	EPA 8260C
Bromomethane	<0.080	ug/L	0.080	0.28	1	U		11/10/2016 15:58	RLD	EPA 8260C
Carbon disulfide	<0.070	ug/L	0.070	0.25	1	U		11/10/2016 15:58	RLD	EPA 8260C
Carbon tetrachloride	<0.050	ug/L	0.050	0.18	1	U		11/10/2016 15:58	RLD	EPA 8260C
Chlorobenzene	<0.040	ug/L	0.040	0.15	1	U		11/10/2016 15:58	RLD	EPA 8260C
Chloroethane	<0.070	ug/L	0.070	0.23	1	U		11/10/2016 15:58	RLD	EPA 8260C
Chloroform	<0.030	ug/L	0.030	0.11	1	U		11/10/2016 15:58	RLD	EPA 8260C
Chloromethane	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 15:58	RLD	EPA 8260C
cis-1,2-Dichloroethene	32	ug/L	0.35	1.2	5			11/11/2016 03:22	AGK	EPA 8260C
cis-1,3-Dichloropropene	<0.011	ug/L	0.011	0.038	1	U		11/10/2016 15:58	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1	U		11/10/2016 15:58	RLD	EPA 8260C
Dibromomethane	<0.050	ug/L	0.050	0.17	1	U		11/10/2016 15:58	RLD	EPA 8260C
Dichlorodifluoromethane	<0.060	ug/L	0.060	0.19	1	U		11/10/2016 15:58	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 800752 Sample Description:MW-102D

DNR License/Well #: 4189/038

Sampled: 11/03/2016 1615

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Diisopropyl ether	<0.040	ug/L	0.040	0.14	1	U		11/10/2016 15:58	RLD	EPA 8260C
Ethylbenzene	<0.040	ug/L	0.040	0.15	1	U		11/10/2016 15:58	RLD	EPA 8260C
Hexachlorobutadiene	<0.050	ug/L	0.050	0.16	1	U		11/10/2016 15:58	RLD	EPA 8260C
Isopropylbenzene	<0.040	ug/L	0.040	0.12	1	U		11/10/2016 15:58	RLD	EPA 8260C
m & p-Xylene	<0.070	ug/L	0.070	0.23	1	U		11/10/2016 15:58	RLD	EPA 8260C
Methyl tert-butyl ether	1.0	ug/L	0.040	0.12	1			11/10/2016 15:58	RLD	EPA 8260C
Methylene chloride	<0.050	ug/L	0.050	0.16	1	U		11/10/2016 15:58	RLD	EPA 8260C
n-Butylbenzene	<0.030	ug/L	0.030	0.11	1	U		11/10/2016 15:58	RLD	EPA 8260C
n-Propylbenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 15:58	RLD	EPA 8260C
Naphthalene	<0.030	ug/L	0.030	0.10	1	U		11/10/2016 15:58	RLD	EPA 8260C
o-Xylene	<0.040	ug/L	0.040	0.14	1	U		11/10/2016 15:58	RLD	EPA 8260C
p-Isopropyltoluene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 15:58	RLD	EPA 8260C
sec-Butylbenzene	<0.050	ug/L	0.050	0.16	1	U		11/10/2016 15:58	RLD	EPA 8260C
Styrene	<0.030	ug/L	0.030	0.11	1	U		11/10/2016 15:58	RLD	EPA 8260C
tert-Butylbenzene	<0.040	ug/L	0.040	0.14	1	U		11/10/2016 15:58	RLD	EPA 8260C
Tetrachloroethene	<0.050	ug/L	0.050	0.18	1	U		11/10/2016 15:58	RLD	EPA 8260C
Tetrahydrofuran	<0.40	ug/L	0.40	1.5	1	U		11/10/2016 15:58	RLD	EPA 8260C
Toluene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 15:58	RLD	EPA 8260C
trans-1,2-Dichloroethene	1.1	ug/L	0.040	0.14	1			11/10/2016 15:58	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.019	ug/L	0.019	0.063	1	U		11/10/2016 15:58	RLD	EPA 8260C
Trichloroethene	0.17	ug/L	0.050	0.17	1			11/10/2016 15:58	RLD	EPA 8260C
Trichlorofluoromethane	<0.090	ug/L	0.090	0.14	1	U		11/10/2016 15:58	RLD	EPA 8260C
Vinyl acetate	<0.22	ug/L	0.22	0.73	1	U		11/10/2016 15:58	RLD	EPA 8260C
Vinyl chloride	0.23	ug/L	0.019	0.064	1			11/10/2016 15:58	RLD	EPA 8260C
1,4-Dioxane	<7.0	ug/L	7.0	23	1	U		11/10/2016 15:58	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications
Kansas NELAP ID# E-10368
Kentucky ID# 0023
ISO/IEC 17025-2005 A2LA Cert # 3806.01
North Carolina ID# 674
Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID E871111, Expires Annually
Louisiana ID # 115843
Virginia ID# 7608
Illinois NELAP ID # 002413
Wisconsin (WOSB) ID# WI-5499-WBE
Maryland ID# 344

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase:
 Project #: 117-7413001.01
 Folder #: 123429
 Purchase Order #:
 Contract #: 2747

Page 1 of 2
 Arrival Temperature: 3.5
 Report Date: 11/30/2016
 Date Received: 11/04/2016
 Reprint Date: 11/30/2016

CT LAB#: 800753	Sample Description: MW-102D	DNR License/Well #: 4189/038	Sampled: 11/03/2016 1615
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Metals Results										
Dissolved Iron	1.78	mg/L	0.059	0.20	1		11/08/2016 22:56	11/08/2016 22:56	NAH	EPA 6010C
Dissolved Manganese	39.7	ug/L	2.2	7.3	1		11/08/2016 22:56	11/08/2016 22:56	NAH	EPA 6010C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications
Kansas NELAP ID# E-10368
Kentucky ID# 0023
ISO/IEC 17025-2005 A2LA Cert # 3806.01
North Carolina ID# 674
Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID E8711111, Expires Annually
Louisiana ID # 115843
Virginia ID# 7608
Illinois NELAP ID # 002413
Wisconsin (WOSB) ID# WI-5499-WBE
Maryland ID# 344

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase:
 Project #: 117-7413001.01
 Folder #: 123429
 Purchase Order #:
 Contract #: 2747

Page 1 of 5
 Arrival Temperature: 3.5
 Report Date: 11/30/2016
 Date Received: 11/04/2016
 Reprint Date: 11/30/2016

CT LAB#: 800754	Sample Description: MW-102S	DNR License/Well #: 4189/037	Sampled: 11/03/2016 1650
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Field Results										
Dissolved Oxygen (Field)	0.63	mg/L	N/A	N/A	1			11/03/2016 00:00	BMS	
Depth to Groundwater (Field)	7.14	Feet	N/A	N/A	1			11/03/2016 00:00	BMS	
OX/REDOX (Field)	94	MV	N/A	N/A	1			11/03/2016 00:00	BMS	
Color (Field)	CLEAR		N/A	N/A	1			11/03/2016 00:00	BMS	FIELD
Conductivity (Field)	2350	umhos/cm	N/A	N/A	1			11/03/2016 00:00	BMS	FIELD
Groundwater Elevation (Field)	846.51	Feet MSL	N/A	N/A	1			11/03/2016 00:00	BMS	FIELD
pH (Field)	6.96	S.U.	N/A	N/A	1			11/03/2016 00:00	BMS	FIELD
Temperature (Field)	11.78	Deg. C	N/A	N/A	1			11/03/2016 00:00	BMS	FIELD
Turbidity (Field)	CLEAR		N/A	N/A	1			11/03/2016 00:00	BMS	FIELD
Inorganic Results										
Alkalinity Total	460	mg/L	5.0	18	1			11/11/2016 10:59	SAW	EPA 310.2
Total Chloride	590	mg/L	8.3	29	12			11/04/2016 23:04	JJF	EPA 9056A
Total Sulfate	21	mg/L	1.0	3.2	1			11/07/2016 12:19	JJF	EPA 9056A
Total Organic Carbon	1.8	mg/L	0.50	1.7	1			11/07/2016 22:39	JJF	EPA 9060A
Metals Results										

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

The depth to groundwater and groundwater elevation results listed above are from a previous sampling round and therefore incorrect.

CT LAB#: 800754 Sample Description: MW-102S

DNR License/Well #: 4189/037

Sampled: 11/03/2016 1650

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Total Iron	<0.034	mg/L	0.034	0.11	1	U	11/08/2016 15:00	11/09/2016 19:34	NAH	EPA 6010C
Total Manganese	<3.4	ug/L	3.4	11	1	U	11/08/2016 15:00	11/09/2016 19:34	NAH	EPA 6010C
Organic Results										
Acetylene	<0.23	ug/L	0.23	0.77	1	U	11/10/2016 09:00	11/14/2016 10:15	agk	Mod RSK 175
Ethane	<0.40	ug/L	0.40	1.2	1	U	11/10/2016 09:00	11/14/2016 10:15	agk	Mod RSK 175
Ethene	<0.50	ug/L	0.50	1.8	1	U	11/10/2016 09:00	11/14/2016 10:15	agk	Mod RSK 175
Methane	<0.40	ug/L	0.40	1.2	1	U	11/10/2016 09:00	11/14/2016 10:15	agk	Mod RSK 175
1,1,1,2-Tetrachloroethane	<0.040	ug/L	0.040	0.13	1	U		11/11/2016 03:51	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.050	ug/L	0.050	0.17	1	U		11/11/2016 03:51	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.017	ug/L	0.017	0.057	1	U		11/11/2016 03:51	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.050	ug/L	0.050	0.16	1	U		11/11/2016 03:51	RLD	EPA 8260C
1,1-Dichloroethane	<0.060	ug/L	0.060	0.19	1	U		11/11/2016 03:51	RLD	EPA 8260C
1,1-Dichloroethene	<0.060	ug/L	0.060	0.20	1	U		11/11/2016 03:51	RLD	EPA 8260C
1,1-Dichloropropene	<0.060	ug/L	0.060	0.19	1	U		11/11/2016 03:51	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/11/2016 03:51	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.040	ug/L	0.040	0.14	1	U		11/11/2016 03:51	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.040	ug/L	0.040	0.12	1	U		11/11/2016 03:51	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.040	ug/L	0.040	0.12	1	U		11/11/2016 03:51	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.090	ug/L	0.090	0.29	1	U		11/11/2016 03:51	RLD	EPA 8260C
1,2-Dibromoethane	<0.070	ug/L	0.070	0.23	1	U		11/11/2016 03:51	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/11/2016 03:51	RLD	EPA 8260C
1,2-Dichloroethane	<0.050	ug/L	0.050	0.18	1	U		11/11/2016 03:51	RLD	EPA 8260C
1,2-Dichloropropane	<0.070	ug/L	0.070	0.23	1	U		11/11/2016 03:51	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<0.050	ug/L	0.050	0.16	1	U		11/11/2016 03:51	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/11/2016 03:51	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 800754 Sample Description:MW-102S

DNR License/Well #: 4189/037

Sampled: 11/03/2016 1650

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,3-Dichloropropane	<0.040	ug/L	0.040	0.13	1	U		11/11/2016 03:51	RLD	EPA 8260C
1,4-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/11/2016 03:51	RLD	EPA 8260C
2,2-Dichloropropane	<0.050	ug/L	0.050	0.15	1	U		11/11/2016 03:51	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.5	1	U		11/11/2016 03:51	RLD	EPA 8260C
2-Chlorotoluene	<0.030	ug/L	0.030	0.11	1	U		11/11/2016 03:51	RLD	EPA 8260C
2-Hexanone	<0.24	ug/L	0.24	0.81	1	U		11/11/2016 03:51	RLD	EPA 8260C
4-Chlorotoluene	<0.040	ug/L	0.040	0.12	1	U		11/11/2016 03:51	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.24	ug/L	0.24	0.82	1	U		11/11/2016 03:51	RLD	EPA 8260C
Acetone	<0.30	ug/L	0.30	1.0	1	U		11/11/2016 03:51	RLD	EPA 8260C
Benzene	<0.018	ug/L	0.018	0.059	1	U		11/11/2016 03:51	RLD	EPA 8260C
Bromobenzene	<0.040	ug/L	0.040	0.15	1	U		11/11/2016 03:51	RLD	EPA 8260C
Bromochloromethane	<0.030	ug/L	0.030	0.099	1	U		11/11/2016 03:51	RLD	EPA 8260C
Bromodichloromethane	<0.016	ug/L	0.016	0.054	1	U		11/11/2016 03:51	RLD	EPA 8260C
Bromoform	<0.040	ug/L	0.040	0.12	1	U		11/11/2016 03:51	RLD	EPA 8260C
Bromomethane	<0.080	ug/L	0.080	0.28	1	U Z		11/11/2016 03:51	RLD	EPA 8260C
Carbon disulfide	<0.070	ug/L	0.070	0.25	1	U		11/11/2016 03:51	RLD	EPA 8260C
Carbon tetrachloride	<0.050	ug/L	0.050	0.18	1	U		11/11/2016 03:51	RLD	EPA 8260C
Chlorobenzene	<0.040	ug/L	0.040	0.15	1	U		11/11/2016 03:51	RLD	EPA 8260C
Chloroethane	<0.070	ug/L	0.070	0.23	1	U		11/11/2016 03:51	RLD	EPA 8260C
Chloroform	<0.030	ug/L	0.030	0.11	1	U		11/11/2016 03:51	RLD	EPA 8260C
Chloromethane	<0.040	ug/L	0.040	0.13	1	U		11/11/2016 03:51	RLD	EPA 8260C
cis-1,2-Dichloroethene	<0.070	ug/L	0.070	0.23	1	U		11/11/2016 03:51	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.011	ug/L	0.011	0.038	1	U		11/11/2016 03:51	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1	U		11/11/2016 03:51	RLD	EPA 8260C
Dibromomethane	<0.050	ug/L	0.050	0.17	1	U		11/11/2016 03:51	RLD	EPA 8260C
Dichlorodifluoromethane	<0.060	ug/L	0.060	0.19	1	U		11/11/2016 03:51	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 800754 Sample Description:MW-102S

DNR License/Well #: 4189/037

Sampled: 11/03/2016 1650

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Diisopropyl ether	<0.040	ug/L	0.040	0.14	1	U	11/11/2016 03:51	11/11/2016 03:51	RLD	EPA 8260C
Ethylbenzene	<0.040	ug/L	0.040	0.15	1	U	11/11/2016 03:51	11/11/2016 03:51	RLD	EPA 8260C
Hexachlorobutadiene	<0.050	ug/L	0.050	0.16	1	U	11/11/2016 03:51	11/11/2016 03:51	RLD	EPA 8260C
Isopropylbenzene	<0.040	ug/L	0.040	0.12	1	U	11/11/2016 03:51	11/11/2016 03:51	RLD	EPA 8260C
m & p-Xylene	<0.070	ug/L	0.070	0.23	1	U	11/11/2016 03:51	11/11/2016 03:51	RLD	EPA 8260C
Methyl tert-butyl ether	<0.040	ug/L	0.040	0.12	1	U	11/11/2016 03:51	11/11/2016 03:51	RLD	EPA 8260C
Methylene chloride	<0.050	ug/L	0.050	0.16	1	U	11/11/2016 03:51	11/11/2016 03:51	RLD	EPA 8260C
n-Butylbenzene	<0.030	ug/L	0.030	0.11	1	U	11/11/2016 03:51	11/11/2016 03:51	RLD	EPA 8260C
n-Propylbenzene	<0.040	ug/L	0.040	0.13	1	U	11/11/2016 03:51	11/11/2016 03:51	RLD	EPA 8260C
Naphthalene	<0.030	ug/L	0.030	0.10	1	U	11/11/2016 03:51	11/11/2016 03:51	RLD	EPA 8260C
o-Xylene	<0.040	ug/L	0.040	0.14	1	U	11/11/2016 03:51	11/11/2016 03:51	RLD	EPA 8260C
p-Isopropyltoluene	<0.040	ug/L	0.040	0.13	1	U	11/11/2016 03:51	11/11/2016 03:51	RLD	EPA 8260C
sec-Butylbenzene	<0.050	ug/L	0.050	0.16	1	U	11/11/2016 03:51	11/11/2016 03:51	RLD	EPA 8260C
Styrene	<0.030	ug/L	0.030	0.11	1	U	11/11/2016 03:51	11/11/2016 03:51	RLD	EPA 8260C
tert-Butylbenzene	<0.040	ug/L	0.040	0.14	1	U	11/11/2016 03:51	11/11/2016 03:51	RLD	EPA 8260C
Tetrachloroethene	<0.050	ug/L	0.050	0.18	1	U	11/11/2016 03:51	11/11/2016 03:51	RLD	EPA 8260C
Tetrahydrofuran	<0.40	ug/L	0.40	1.5	1	U	11/11/2016 03:51	11/11/2016 03:51	RLD	EPA 8260C
Toluene	<0.040	ug/L	0.040	0.13	1	U	11/11/2016 03:51	11/11/2016 03:51	RLD	EPA 8260C
trans-1,2-Dichloroethene	<0.040	ug/L	0.040	0.14	1	U	11/11/2016 03:51	11/11/2016 03:51	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.019	ug/L	0.019	0.063	1	U	11/11/2016 03:51	11/11/2016 03:51	RLD	EPA 8260C
Trichloroethene	<0.050	ug/L	0.050	0.17	1	U	11/11/2016 03:51	11/11/2016 03:51	RLD	EPA 8260C
Trichlorofluoromethane	<0.090	ug/L	0.090	0.14	1	U	11/11/2016 03:51	11/11/2016 03:51	RLD	EPA 8260C
Vinyl acetate	<0.22	ug/L	0.22	0.73	1	U	11/11/2016 03:51	11/11/2016 03:51	RLD	EPA 8260C
Vinyl chloride	<0.019	ug/L	0.019	0.064	1	U	11/11/2016 03:51	11/11/2016 03:51	RLD	EPA 8260C
1,4-Dioxane	<7.0	ug/L	7.0	23	1	U	11/11/2016 03:51	11/11/2016 03:51	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications
Kansas NELAP ID# E-10368
Kentucky ID# 0023
ISO/IEC 17025-2005 A2LA Cert # 3806.01
North Carolina ID# 674
Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID E871111, Expires Annually
Louisiana ID # 115843
Virginia ID# 7608
Illinois NELAP ID # 002413
Wisconsin (WOSB) ID# WI-5499-WBE
Maryland ID# 344

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase:
 Project #: 117-7413001.01
 Folder #: 123429
 Purchase Order #:
 Contract #: 2747

Page 1 of 2
 Arrival Temperature: 3.5
 Report Date: 11/30/2016
 Date Received: 11/04/2016
 Reprint Date: 11/30/2016

CT LAB#: 800755	Sample Description: MW-102S	DNR License/Well #: 4189/037	Sampled: 11/03/2016 1650
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Metals Results										
Dissolved Iron	<0.059	mg/L	0.059	0.20	1	U	11/08/2016 23:03	11/08/2016 23:03	NAH	EPA 6010C
Dissolved Manganese	<2.2	ug/L	2.2	7.3	1	U	11/08/2016 23:03	11/08/2016 23:03	NAH	EPA 6010C

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Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
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W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
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Z	Specified calibration criteria was not met.	

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Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID E871111, Expires Annually
Louisiana ID # 115843
Virginia ID# 7608
Illinois NELAP ID # 002413
Wisconsin (WOSB) ID# WI-5499-WBE
Maryland ID# 344

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase:
 Project #: 117-7413001.01
 Folder #: 123429
 Purchase Order #:
 Contract #: 2747

Page 1 of 5
 Arrival Temperature: 3.5
 Report Date: 11/30/2016
 Date Received: 11/04/2016
 Reprint Date: 11/30/2016

CT LAB#: 800756 Sample Description: TB-3

DNR License/Well #: 4189/999 Sampled: 11/03/2016

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Organic Results										
1,1,1,2-Tetrachloroethane	<0.040	ug/L	0.040	0.13	1	U	11/09/2016 19:40	11/09/2016 19:40	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.050	ug/L	0.050	0.17	1	U	11/09/2016 19:40	11/09/2016 19:40	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.017	ug/L	0.017	0.057	1	U	11/09/2016 19:40	11/09/2016 19:40	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.050	ug/L	0.050	0.16	1	U	11/09/2016 19:40	11/09/2016 19:40	RLD	EPA 8260C
1,1-Dichloroethane	<0.060	ug/L	0.060	0.19	1	U	11/09/2016 19:40	11/09/2016 19:40	RLD	EPA 8260C
1,1-Dichloroethene	<0.060	ug/L	0.060	0.20	1	U	11/09/2016 19:40	11/09/2016 19:40	RLD	EPA 8260C
1,1-Dichloropropene	<0.060	ug/L	0.060	0.19	1	U	11/09/2016 19:40	11/09/2016 19:40	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.040	ug/L	0.040	0.13	1	U	11/09/2016 19:40	11/09/2016 19:40	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.040	ug/L	0.040	0.14	1	U	11/09/2016 19:40	11/09/2016 19:40	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.040	ug/L	0.040	0.12	1	U	11/09/2016 19:40	11/09/2016 19:40	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.040	ug/L	0.040	0.12	1	U	11/09/2016 19:40	11/09/2016 19:40	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.090	ug/L	0.090	0.29	1	U	11/09/2016 19:40	11/09/2016 19:40	RLD	EPA 8260C
1,2-Dibromoethane	<0.070	ug/L	0.070	0.23	1	U	11/09/2016 19:40	11/09/2016 19:40	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U	11/09/2016 19:40	11/09/2016 19:40	RLD	EPA 8260C
1,2-Dichloroethane	<0.050	ug/L	0.050	0.18	1	U	11/09/2016 19:40	11/09/2016 19:40	RLD	EPA 8260C
1,2-Dichloropropane	<0.070	ug/L	0.070	0.23	1	U	11/09/2016 19:40	11/09/2016 19:40	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

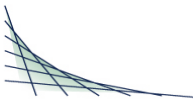
CT LAB#: 800756 Sample Description:TB-3

DNR License/Well #: 4189/999

Sampled: 11/03/2016

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,3,5-Trimethylbenzene	<0.050	ug/L	0.050	0.16	1	U		11/09/2016 19:40	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 19:40	RLD	EPA 8260C
1,3-Dichloropropane	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 19:40	RLD	EPA 8260C
1,4-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 19:40	RLD	EPA 8260C
2,2-Dichloropropane	<0.050	ug/L	0.050	0.15	1	U		11/09/2016 19:40	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.5	1	U		11/09/2016 19:40	RLD	EPA 8260C
2-Chlorotoluene	<0.030	ug/L	0.030	0.11	1	U		11/09/2016 19:40	RLD	EPA 8260C
2-Hexanone	<0.24	ug/L	0.24	0.81	1	U		11/09/2016 19:40	RLD	EPA 8260C
4-Chlorotoluene	<0.040	ug/L	0.040	0.12	1	U		11/09/2016 19:40	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.24	ug/L	0.24	0.82	1	U		11/09/2016 19:40	RLD	EPA 8260C
Acetone	<0.30	ug/L	0.30	1.0	1	U		11/09/2016 19:40	RLD	EPA 8260C
Benzene	<0.018	ug/L	0.018	0.059	1	U		11/09/2016 19:40	RLD	EPA 8260C
Bromobenzene	<0.040	ug/L	0.040	0.15	1	U		11/09/2016 19:40	RLD	EPA 8260C
Bromochloromethane	<0.030	ug/L	0.030	0.099	1	U		11/09/2016 19:40	RLD	EPA 8260C
Bromodichloromethane	<0.016	ug/L	0.016	0.054	1	U		11/09/2016 19:40	RLD	EPA 8260C
Bromoform	<0.040	ug/L	0.040	0.12	1	U		11/09/2016 19:40	RLD	EPA 8260C
Bromomethane	<0.080	ug/L	0.080	0.28	1	U Z		11/09/2016 19:40	RLD	EPA 8260C
Carbon disulfide	<0.070	ug/L	0.070	0.25	1	U		11/09/2016 19:40	RLD	EPA 8260C
Carbon tetrachloride	<0.050	ug/L	0.050	0.18	1	U		11/09/2016 19:40	RLD	EPA 8260C
Chlorobenzene	<0.040	ug/L	0.040	0.15	1	U		11/09/2016 19:40	RLD	EPA 8260C
Chloroethane	<0.070	ug/L	0.070	0.23	1	U		11/09/2016 19:40	RLD	EPA 8260C
Chloroform	<0.030	ug/L	0.030	0.11	1	U		11/09/2016 19:40	RLD	EPA 8260C
Chloromethane	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 19:40	RLD	EPA 8260C
cis-1,2-Dichloroethene	<0.070	ug/L	0.070	0.23	1	U		11/09/2016 19:40	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.011	ug/L	0.011	0.038	1	U		11/09/2016 19:40	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1	U		11/09/2016 19:40	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis



CT LAB#: 800756 Sample Description:TB-3

DNR License/Well #: 4189/999

Sampled: 11/03/2016

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Dibromomethane	<0.050	ug/L	0.050	0.17	1	U		11/09/2016 19:40	RLD	EPA 8260C
Dichlorodifluoromethane	<0.060	ug/L	0.060	0.19	1	U		11/09/2016 19:40	RLD	EPA 8260C
Diisopropyl ether	<0.040	ug/L	0.040	0.14	1	U		11/09/2016 19:40	RLD	EPA 8260C
Ethylbenzene	<0.040	ug/L	0.040	0.15	1	U		11/09/2016 19:40	RLD	EPA 8260C
Hexachlorobutadiene	<0.050	ug/L	0.050	0.16	1	U		11/09/2016 19:40	RLD	EPA 8260C
Isopropylbenzene	<0.040	ug/L	0.040	0.12	1	U		11/09/2016 19:40	RLD	EPA 8260C
m & p-Xylene	<0.070	ug/L	0.070	0.23	1	U		11/09/2016 19:40	RLD	EPA 8260C
Methyl tert-butyl ether	<0.040	ug/L	0.040	0.12	1	U		11/09/2016 19:40	RLD	EPA 8260C
Methylene chloride	<0.050	ug/L	0.050	0.16	1	U		11/09/2016 19:40	RLD	EPA 8260C
n-Butylbenzene	<0.030	ug/L	0.030	0.11	1	U		11/09/2016 19:40	RLD	EPA 8260C
n-Propylbenzene	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 19:40	RLD	EPA 8260C
Naphthalene	<0.030	ug/L	0.030	0.10	1	U		11/09/2016 19:40	RLD	EPA 8260C
o-Xylene	<0.040	ug/L	0.040	0.14	1	U		11/09/2016 19:40	RLD	EPA 8260C
p-Isopropyltoluene	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 19:40	RLD	EPA 8260C
sec-Butylbenzene	<0.050	ug/L	0.050	0.16	1	U		11/09/2016 19:40	RLD	EPA 8260C
Styrene	<0.030	ug/L	0.030	0.11	1	U		11/09/2016 19:40	RLD	EPA 8260C
tert-Butylbenzene	<0.040	ug/L	0.040	0.14	1	U		11/09/2016 19:40	RLD	EPA 8260C
Tetrachloroethene	<0.050	ug/L	0.050	0.18	1	U		11/09/2016 19:40	RLD	EPA 8260C
Tetrahydrofuran	0.46	ug/L	0.40	1.5	1	J		11/09/2016 19:40	RLD	EPA 8260C
Toluene	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 19:40	RLD	EPA 8260C
trans-1,2-Dichloroethene	<0.040	ug/L	0.040	0.14	1	U		11/09/2016 19:40	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.019	ug/L	0.019	0.063	1	U		11/09/2016 19:40	RLD	EPA 8260C
Trichloroethene	<0.050	ug/L	0.050	0.17	1	U		11/09/2016 19:40	RLD	EPA 8260C
Trichlorofluoromethane	<0.090	ug/L	0.090	0.14	1	U		11/09/2016 19:40	RLD	EPA 8260C
Vinyl acetate	<0.22	ug/L	0.22	0.73	1	U		11/09/2016 19:40	RLD	EPA 8260C
Vinyl chloride	<0.019	ug/L	0.019	0.064	1	U		11/09/2016 19:40	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 800756 Sample Description:TB-3 DNR License/Well #: 4189/999 Sampled: 11/03/2016

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,4-Dioxane	<7.0	ug/L	7.0	23	1	U		11/09/2016 19:40	RLD	EPA 8260C

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Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

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DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID E871111, Expires Annually
Louisiana ID # 115843
Virginia ID# 7608
Illinois NELAP ID # 002413
Wisconsin (WOSB) ID# WI-5499-WBE
Maryland ID# 344

QC SUMMARY REPORT

TETRA TECH

SDG #: 0

Folder #: 123429

**Project Name: OCONOMOWOC
 ELECTROPLATING
 Project Number: 117-7413001.01**

Lab Control Spike Water

Analytical Run #:	132309	Analysis Date:	11/04/2016	Prep Batch #:	Matrix:	LIQUID
CTLab #:	801439	Analysis Time:	11:15	Prep Date/Time:	Method:	SW9056A
Parent Sample #:		Analyst:	JJF	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Chloride	15.98	mg/L			15.00	107	80 --- 120		
Sulfate	26.14	mg/L			25.00	105	80 --- 120		

TETRA TECH

SDG #: 0

Folder #: 123429

Project Name: OCONOMOWOC
ELECTROPLATING
Project Number: 117-7413001.01

Method Blank Water

Analytical Run #:	132309	Analysis Date:	11/04/2016	Prep Batch #:		Matrix:	LIQUID
CTLab #:	801433	Analysis Time:	11:39	Prep Date/Time:		Method:	SW9056A
Parent Sample #:		Analyst:	JJF	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Chloride	0.7	mg/L		U	0		0.7		
Sulfate	1.0	mg/L		U	0		1.0		

TETRA TECH

SDG #: 0

Folder #: 123429

Project Name: OCONOMOWOC

ELECTROPLATING

Project Number: 117-7413001.01

Lab Control Spike Water

Analytical Run #:	132381	Analysis Date:	11/07/2016	Prep Batch #:		Matrix:	LIQUID
CTLab #:	802121	Analysis Time:	17:49	Prep Date/Time:		Method:	SW9060
Parent Sample #:		Analyst:	JJF	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Organic Carbon	50.16	mg/L			50.00	100	85 --- 111		

TETRA TECH

SDG #: 0

Folder #: 123429

Project Name: OCONOMOWOC

ELECTROPLATING

Project Number: 117-7413001.01

Method Blank Water

Analytical Run #:	132381	Analysis Date:	11/07/2016	Prep Batch #:		Matrix:	LIQUID
CTLab #:	802122	Analysis Time:	18:04	Prep Date/Time:		Method:	SW9060
Parent Sample #:		Analyst:	JJF	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Organic Carbon	0.5	mg/L		U	0		0.5		

TETRA TECH

SDG #: 0

Folder #: 123429

Project Name: OCONOMOWOC
ELECTROPLATING
Project Number: 117-7413001.01

Lab Control Spike Water

Analytical Run #:	132600	Analysis Date:	11/11/2016	Prep Batch #:	Matrix:	LIQUID
CTLab #:	804113	Analysis Time:	10:38	Prep Date/Time:	Method:	E310.2
Parent Sample #:		Analyst:	SAW	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Alkalinity	367.0	mg/L			375.0	98	90 --- 110		

TETRA TECH

SDG #: 0

Folder #: 123429

Project Name: OCONOMOWOC
ELECTROPLATING
Project Number: 117-7413001.01

Method Blank Water

Analytical Run #:	132600	Analysis Date:	11/11/2016	Prep Batch #:	Matrix:	LIQUID
CTLab #:	804112	Analysis Time:	10:44	Prep Date/Time:	Method:	E310.2
Parent Sample #:		Analyst:	SAW	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Alkalinity	5	mg/L		U	0			5	

TETRA TECH

SDG #: 0

Folder #: 123429

Project Name: OCONOMOWOC
ELECTROPLATING
Project Number: 117-7413001.01

Matrix Spike Duplicate Water

Analytical Run #:	132355	Analysis Date:	11/08/2016	Prep Batch #:	Matrix:	GROUND WATER
CTLab #:	805243	Analysis Time:	23:17	Prep Date/Time:	Method:	SW6010
Parent Sample #:	805242	Analyst:	DC	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Iron	2.03	mg/L	BDL		2.00	102	72 --- 113	0	18
Manganese	749	ug/L	BDL		1000	75	67 --- 121	3	13

TETRA TECH

SDG #: 0

Folder #: 123429

Project Name: OCONOMOWOC
ELECTROPLATING
Project Number: 117-7413001.01

Matrix Spike Water

Analytical Run #:	132355	Analysis Date:	11/08/2016	Prep Batch #:		Matrix:	GROUND WATER
CTLab #:	805242	Analysis Time:	23:11	Prep Date/Time:		Method:	SW6010
Parent Sample #:	800755	Analyst:	DC	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Iron	2.04	mg/L	BDL		2.00	102	72 --- 113		18
Manganese	769	ug/L	BDL		1000	77	67 --- 121		13

TETRA TECH

SDG #: 0

Folder #: 123429

Project Name: OCONOMOWOC

ELECTROPLATING

Project Number: 117-7413001.01

Lab Control Spike Water

Analytical Run #:	132487	Analysis Date:	11/09/2016	Prep Batch #:	60016	Matrix:	LIQUID
CTLab #:	801337	Analysis Time:	20:01	Prep Date/Time:	11/08/2016 15:00	Method:	SW6010
Parent Sample #:		Analyst:	NAH	Prep Analyst:	NAH		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Iron	0.3830	mg/L			0.4000	96	80 --- 115		
Manganese	214.0	ug/L			200.0	107	86 --- 112		

TETRA TECH

SDG #: 0

Folder #: 123429

Project Name: OCONOMOWOC
ELECTROPLATING
Project Number: 117-7413001.01

Method Blank Water

Analytical Run #:	132487	Analysis Date:	11/09/2016	Prep Batch #:	60016	Matrix:	LIQUID
CTLab #:	801336	Analysis Time:	20:08	Prep Date/Time:	11/08/2016 15:00	Method:	SW6010
Parent Sample #:		Analyst:	NAH	Prep Analyst:	NAH		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Iron	0.034	mg/L		U	0		0.034		
Manganese	3.4	ug/L		U	0		3.4		

TETRA TECH

SDG #: 0

Folder #: 123429

Project Name: OCONOMOWOC

ELECTROPLATING

Project Number: 117-7413001.01

Lab Control Spike Water

Analytical Run #:	132488	Analysis Date:	11/09/2016	Prep Batch #:	60017	Matrix:	LIQUID
CTLab #:	801361	Analysis Time:	18:03	Prep Date/Time:	11/08/2016 15:00	Method:	SW6010
Parent Sample #:		Analyst:	NAH	Prep Analyst:	NAH		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Iron	0.3940	mg/L			0.4000	98	80 --- 115		
Manganese	214.0	ug/L			200.0	107	86 --- 112		

TETRA TECH

SDG #: 0

Folder #: 123429

Project Name: OCONOMOWOC
ELECTROPLATING
Project Number: 117-7413001.01

Method Blank Water

Analytical Run #:	132488	Analysis Date:	11/09/2016	Prep Batch #:	60017	Matrix:	LIQUID
CTLab #:	801360	Analysis Time:	18:30	Prep Date/Time:	11/08/2016 15:00	Method:	SW6010
Parent Sample #:		Analyst:	NAH	Prep Analyst:	NAH		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Iron	0.034	mg/L		U	0		0.034		
Manganese	3.4	ug/L		U	0		3.4		

TETRA TECH

SDG #: 0

Folder #: 123429

Project Name: OCONOMOWOC

ELECTROPLATING

Project Number: 117-7413001.01

Matrix Spike Duplicate Water

Analytical Run #:	132488	Analysis Date:	11/09/2016	Prep Batch #:	60017	Matrix:	GROUND WATER
CTLab #:	801363	Analysis Time:	18:51	Prep Date/Time:	11/08/2016 15:00	Method:	SW6010
Parent Sample #:	801362	Analyst:	NAH	Prep Analyst:	NAH		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Iron	36.0	mg/L	35.0		0.400	250	72 --- 118	8	11
Manganese	330	ug/L	124		200	103	84 --- 111	3	7

TETRA TECH

SDG #: 0

Folder #: 123429

Project Name: OCONOMOWOC

ELECTROPLATING

Project Number: 117-7413001.01

Matrix Spike Water

Analytical Run #:	132488	Analysis Date:	11/09/2016	Prep Batch #:	60017	Matrix:	GROUND WATER
CTLab #:	801362	Analysis Time:	18:44	Prep Date/Time:	11/08/2016 15:00	Method:	SW6010
Parent Sample #:	800744	Analyst:	NAH	Prep Analyst:	NAH		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Iron	33.1	mg/L	35.0		0.400	0	72 --- 118		
Manganese	321	ug/L	124		200	98	84 --- 111		

Lab Control Spike Water

Analytical Run #:	132322	Analysis Date:	11/09/2016	Prep Batch #:	Matrix:	LIQUID
CTLab #:	803728	Analysis Time:	16:46	Prep Date/Time:	Method:	SW8260C
Parent Sample #:		Analyst:	RLD	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	3.73	ug/L			4.00	93	74 --- 127		
1,1,1-Trichloroethane	3.70	ug/L			4.00	92	73 --- 132		
1,1,2,2-Tetrachloroethane	3.70	ug/L			4.00	92	67 --- 129		
1,1,2-Trichloroethane	3.72	ug/L			4.00	93	73 --- 129		
1,1-Dichloroethane	3.63	ug/L			4.00	91	73 --- 129		
1,1-Dichloroethene	3.55	ug/L			4.00	89	73 --- 132		
1,1-Dichloropropene	3.66	ug/L			4.00	92	75 --- 125		
1,2 Dichloroethane-d4	97.0	% Recovery			100	97.0	68 --- 120		
1,2,3-Trichlorobenzene	3.97	ug/L			4.00	99	72 --- 125		
1,2,3-Trichloropropane	3.22	ug/L			4.00	80	68 --- 136		
1,2,4-Trichlorobenzene	4.05	ug/L			4.00	101	67 --- 124		
1,2,4-Trimethylbenzene	3.86	ug/L			4.00	96	77 --- 123		
1,2-Dibromo-3-chloropropane	3.52	ug/L			4.00	88	56 --- 138		
1,2-Dibromoethane	3.68	ug/L			4.00	92	76 --- 127		
1,2-Dichlorobenzene	3.98	ug/L			4.00	100	82 --- 120		
1,2-Dichloroethane	3.68	ug/L			4.00	92	72 --- 134		
1,2-Dichloropropane	3.70	ug/L			4.00	92	76 --- 124		
1,3,5-Trimethylbenzene	3.98	ug/L			4.00	100	77 --- 124		
1,3-Dichlorobenzene	4.01	ug/L			4.00	100	81 --- 120		
1,3-Dichloropropane	3.57	ug/L			4.00	89	76 --- 125		
1,4-Dichlorobenzene	4.06	ug/L			4.00	102	80 --- 120		
2,2-Dichloropropane	4.03	ug/L			4.00	101	54 --- 144		
2-Butanone	34.1	ug/L			40.0	85	57 --- 144		
2-Chlorotoluene	3.94	ug/L			4.00	98	77 --- 123		
2-Hexanone	35.3	ug/L			40.0	88	61 --- 132		
4-Chlorotoluene	3.99	ug/L			4.00	100	76 --- 124		
4-Methyl-2-pentanone	34.1	ug/L			40.0	85	64 --- 135		
Acetone	33.3	ug/L			40.0	83	51 --- 152		
Benzene	3.70	ug/L			4.00	92	80 --- 122		
Bromobenzene	3.99	ug/L			4.00	100	81 --- 120		
Bromochloromethane	3.42	ug/L			4.00	86	78 --- 126		
Bromodichloromethane	3.59	ug/L			4.00	90	67 --- 132		
Bromofluorobenzene	100	% Recovery			100	100	68 --- 120		
Bromoform	3.26	ug/L			4.00	82	55 --- 132		
Bromomethane	3.07	ug/L			4.00	77	65 --- 141		
Carbon disulfide	7.24	ug/L			8.00	90	61 --- 140		
Carbon tetrachloride	3.89	ug/L			4.00	97	72 --- 133		
Chlorobenzene	3.83	ug/L			4.00	96	80 --- 122		
Chloroethane	4.10	ug/L			4.00	102	71 --- 134		
Chloroform	3.61	ug/L			4.00	90	73 --- 127		
Chloromethane	3.64	ug/L			4.00	91	72 --- 128		
cis-1,2-Dichloroethene	3.80	ug/L			4.00	95	76 --- 127		

Lab Control Spike Water

Analytical Run #:	132322	Analysis Date:	11/09/2016	Prep Batch #:	Matrix:	LIQUID
CTLab #:	803728	Analysis Time:	16:46	Prep Date/Time:	Method:	SW8260C
Parent Sample #:		Analyst:	RLD	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
cis-1,3-Dichloropropene	3.67	ug/L			4.00	92	72 --- 125		
d8-Toluene	99.0	% Recovery			100	99.0	71 --- 117		
Dibromochloromethane	3.54	ug/L			4.00	88	60 --- 131		
Dibromofluoromethane	100	% Recovery			100	100	67 --- 121		
Dibromomethane	3.56	ug/L			4.00	89	76 --- 129		
Dichlorodifluoromethane	3.90	ug/L			4.00	98	64 --- 149		
Diisopropyl ether	3.61	ug/L			4.00	90	62 --- 137		
Ethylbenzene	3.91	ug/L			4.00	98	80 --- 121		
Hexachlorobutadiene	3.94	ug/L			4.00	98	71 --- 131		
Isopropylbenzene	3.85	ug/L			4.00	96	75 --- 122		
m & p-Xylene	7.75	ug/L			8.00	97	80 --- 121		
Methyl tert-butyl ether	3.52	ug/L			4.00	88	63 --- 135		
Methylene chloride	3.98	ug/L			4.00	100	38 --- 174		
n-Butylbenzene	3.95	ug/L			4.00	99	71 --- 125		
n-Propylbenzene	4.01	ug/L			4.00	100	76 --- 122		
Naphthalene	3.80	ug/L			4.00	95	64 --- 126		
o-Xylene	3.85	ug/L			4.00	96	77 --- 120		
p-Isopropyltoluene	4.01	ug/L			4.00	100	76 --- 122		
sec-Butylbenzene	3.92	ug/L			4.00	98	75 --- 122		
Styrene	3.80	ug/L			4.00	95	76 --- 121		
tert-Butylbenzene	3.93	ug/L			4.00	98	77 --- 120		
Tetrachloroethene	3.79	ug/L			4.00	95	75 --- 127		
Tetrahydrofuran	33.5	ug/L			40.0	84	60 --- 131		
Toluene	3.65	ug/L			4.00	91	80 --- 122		
trans-1,2-Dichloroethene	3.62	ug/L			4.00	90	68 --- 136		
trans-1,3-Dichloropropene	3.58	ug/L			4.00	90	65 --- 126		
Trichloroethene	3.69	ug/L			4.00	92	78 --- 126		
Trichlorofluoromethane	3.69	ug/L			4.00	92	70 --- 145		
Vinyl acetate	36.4	ug/L			40.0	91	38 --- 152		
Vinyl chloride	3.85	ug/L			4.00	96	71 --- 135		

Method Blank Water

Analytical Run #: 132322	Analysis Date: 11/09/2016	Prep Batch #:	Matrix: LIQUID
CTLab #: 808076	Analysis Time: 18:13	Prep Date/Time:	Method: SW8260C
Parent Sample #:	Analyst: RLD	Prep Analyst:	

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	0.04	ug/L		U	0		0.04		
1,1,1-Trichloroethane	0.05	ug/L		U	0		0.05		
1,1,2,2-Tetrachloroethane	0.017	ug/L		U	0		0.017		
1,1,2-Trichloroethane	0.05	ug/L		U	0		0.05		
1,1-Dichloroethane	0.06	ug/L		U	0		0.06		
1,1-Dichloroethene	0.06	ug/L		U	0		0.06		
1,1-Dichloropropene	0.06	ug/L		U	0		0.06		
1,2 Dichloroethane-d4	101	% Recovery			100	101	68 --- 120		
1,2,3-Trichlorobenzene	0.04	ug/L		U	0		0.04		
1,2,3-Trichloropropane	0.04	ug/L		U	0		0.04		
1,2,4-Trichlorobenzene	0.04	ug/L		U	0		0.04		
1,2,4-Trimethylbenzene	0.04	ug/L		U	0		0.04		
1,2-Dibromo-3-chloropropane	0.09	ug/L		U	0		0.09		
1,2-Dibromoethane	0.07	ug/L		U	0		0.07		
1,2-Dichlorobenzene	0.04	ug/L		U	0		0.04		
1,2-Dichloroethane	0.05	ug/L		U	0		0.05		
1,2-Dichloropropane	0.07	ug/L		U	0		0.07		
1,3,5-Trimethylbenzene	0.05	ug/L		U	0		0.05		
1,3-Dichlorobenzene	0.04	ug/L		U	0		0.04		
1,3-Dichloropropane	0.04	ug/L		U	0		0.04		
1,4-Dichlorobenzene	0.04	ug/L		U	0		0.04		
2,2-Dichloropropane	0.05	ug/L		U	0		0.05		
2-Butanone	0.5	ug/L		U	0		0.5		
2-Chlorotoluene	0.03	ug/L		U	0		0.03		
2-Hexanone	0.24	ug/L		U	0		0.24		
4-Chlorotoluene	0.04	ug/L		U	0		0.04		
4-Methyl-2-pentanone	0.24	ug/L		U	0		0.24		
Acetone	0.455	ug/L			0		0.30		
Benzene	0.018	ug/L		U	0		0.018		
Bromobenzene	0.04	ug/L		U	0		0.04		
Bromochloromethane	0.030	ug/L		U	0		0.030		
Bromodichloromethane	0.016	ug/L		U	0		0.016		
Bromofluorobenzene	98.0	% Recovery			100	98.0	68 --- 120		
Bromoform	0.04	ug/L		U	0		0.04		
Bromomethane	0.08	ug/L		U	0		0.08		
Carbon disulfide	0.07	ug/L		U	0		0.07		
Carbon tetrachloride	0.05	ug/L		U	0		0.05		
Chlorobenzene	0.04	ug/L		U	0		0.04		
Chloroethane	0.07	ug/L		U	0		0.07		
Chloroform	0.03	ug/L		U	0		0.03		
Chloromethane	0.04	ug/L		U	0		0.04		
cis-1,2-Dichloroethene	0.07	ug/L		U	0		0.07		

Method Blank Water

Analytical Run #:	132322	Analysis Date:	11/09/2016	Prep Batch #:	Matrix:	LIQUID
CTLab #:	808076	Analysis Time:	18:13	Prep Date/Time:	Method:	SW8260C
Parent Sample #:		Analyst:	RLD	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
cis-1,3-Dichloropropene	0.011	ug/L		U	0		0.011		
d8-Toluene	101	% Recovery			100	101	71 --- 117		
Dibromochloromethane	0.03	ug/L		U	0		0.03		
Dibromofluoromethane	103	% Recovery			100	103	67 --- 122		
Dibromomethane	0.05	ug/L		U	0		0.05		
Dichlorodifluoromethane	0.06	ug/L		U	0		0.06		
Diisopropyl ether	0.04	ug/L		U	0		0.04		
Ethylbenzene	0.04	ug/L		U	0		0.04		
Hexachlorobutadiene	0.05	ug/L		U	0		0.05		
Isopropylbenzene	0.04	ug/L		U	0		0.04		
m & p-Xylene	0.07	ug/L		U	0		0.07		
Methyl tert-butyl ether	0.04	ug/L		U	0		0.04		
Methylene chloride	0.05	ug/L		U	0		0.05		
n-Butylbenzene	0.03	ug/L		U	0		0.03		
n-Propylbenzene	0.04	ug/L		U	0		0.04		
Naphthalene	0.03	ug/L		U	0		0.03		
o-Xylene	0.04	ug/L		U	0		0.04		
p-Isopropyltoluene	0.04	ug/L		U	0		0.04		
sec-Butylbenzene	0.05	ug/L		U	0		0.05		
Styrene	0.03	ug/L		U	0		0.03		
tert-Butylbenzene	0.04	ug/L		U	0		0.04		
Tetrachloroethene	0.05	ug/L		U	0		0.05		
Tetrahydrofuran	0.4	ug/L		U	0		0.4		
Toluene	0.04	ug/L		U	0		0.04		
trans-1,2-Dichloroethene	0.04	ug/L		U	0		0.04		
trans-1,3-Dichloropropene	0.019	ug/L		U	0		0.019		
Trichloroethene	0.05	ug/L		U	0		0.05		
Trichlorofluoromethane	0.09	ug/L		U	0		0.09		
Vinyl acetate	0.22	ug/L		U	0		0.22		
Vinyl chloride	0.019	ug/L		U	0		0.019		

Lab Control Spike Water

Analytical Run #:	132323	Analysis Date:	11/10/2016	Prep Batch #:	Matrix:	LIQUID
CTLab #:	803821	Analysis Time:	08:12	Prep Date/Time:	Method:	SW8260C
Parent Sample #:		Analyst:	RLD	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	3.70	ug/L			4.00	92	74 --- 127		
1,1,1-Trichloroethane	3.79	ug/L			4.00	95	73 --- 132		
1,1,2,2-Tetrachloroethane	3.60	ug/L			4.00	90	67 --- 129		
1,1,2-Trichloroethane	3.61	ug/L			4.00	90	73 --- 129		
1,1-Dichloroethane	3.75	ug/L			4.00	94	73 --- 129		
1,1-Dichloroethene	3.74	ug/L			4.00	94	73 --- 132		
1,1-Dichloropropene	3.76	ug/L			4.00	94	75 --- 125		
1,2 Dichloroethane-d4	98.0	% Recovery			100	98.0	68 --- 120		
1,2,3-Trichlorobenzene	3.96	ug/L			4.00	99	72 --- 125		
1,2,3-Trichloropropane	3.18	ug/L			4.00	80	68 --- 136		
1,2,4-Trichlorobenzene	4.06	ug/L			4.00	102	67 --- 124		
1,2,4-Trimethylbenzene	3.87	ug/L			4.00	97	77 --- 123		
1,2-Dibromo-3-chloropropane	3.32	ug/L			4.00	83	56 --- 138		
1,2-Dibromoethane	3.69	ug/L			4.00	92	76 --- 127		
1,2-Dichlorobenzene	4.01	ug/L			4.00	100	82 --- 120		
1,2-Dichloroethane	3.69	ug/L			4.00	92	72 --- 134		
1,2-Dichloropropane	3.73	ug/L			4.00	93	76 --- 124		
1,3,5-Trimethylbenzene	3.99	ug/L			4.00	100	77 --- 124		
1,3-Dichlorobenzene	4.08	ug/L			4.00	102	81 --- 120		
1,3-Dichloropropane	3.58	ug/L			4.00	90	76 --- 125		
1,4-Dichlorobenzene	4.07	ug/L			4.00	102	80 --- 120		
2,2-Dichloropropane	3.98	ug/L			4.00	100	54 --- 144		
2-Butanone	35.1	ug/L			40.0	88	57 --- 144		
2-Chlorotoluene	4.05	ug/L			4.00	101	77 --- 123		
2-Hexanone	35.4	ug/L			40.0	88	61 --- 132		
4-Chlorotoluene	3.94	ug/L			4.00	98	76 --- 124		
4-Methyl-2-pentanone	34.4	ug/L			40.0	86	64 --- 135		
Acetone	33.2	ug/L			40.0	83	51 --- 152		
Benzene	3.82	ug/L			4.00	96	80 --- 122		
Bromobenzene	3.97	ug/L			4.00	99	81 --- 120		
Bromochloromethane	3.61	ug/L			4.00	90	78 --- 126		
Bromodichloromethane	3.52	ug/L			4.00	88	67 --- 132		
Bromofluorobenzene	98.0	% Recovery			100	98.0	68 --- 120		
Bromoform	2.96	ug/L			4.00	74	55 --- 132		
Bromomethane	3.35	ug/L			4.00	84	65 --- 141		
Carbon disulfide	7.37	ug/L			8.00	92	61 --- 140		
Carbon tetrachloride	3.96	ug/L			4.00	99	72 --- 133		
Chlorobenzene	3.95	ug/L			4.00	99	80 --- 122		
Chloroethane	4.10	ug/L			4.00	102	71 --- 134		
Chloroform	3.71	ug/L			4.00	93	73 --- 127		
Chloromethane	3.89	ug/L			4.00	97	72 --- 128		
cis-1,2-Dichloroethene	3.81	ug/L			4.00	95	76 --- 127		

Lab Control Spike Water

Analytical Run #:	132323	Analysis Date:	11/10/2016	Prep Batch #:	Matrix:	LIQUID
CTLab #:	803821	Analysis Time:	08:12	Prep Date/Time:	Method:	SW8260C
Parent Sample #:		Analyst:	RLD	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
cis-1,3-Dichloropropene	3.52	ug/L			4.00	88	72 --- 125		
d8-Toluene	98.0	% Recovery			100	98.0	71 --- 117		
Dibromochloromethane	3.43	ug/L			4.00	86	60 --- 131		
Dibromofluoromethane	99.0	% Recovery			100	99.0	67 --- 121		
Dibromomethane	3.59	ug/L			4.00	90	76 --- 129		
Dichlorodifluoromethane	4.05	ug/L			4.00	101	64 --- 149		
Diisopropyl ether	3.68	ug/L			4.00	92	62 --- 137		
Ethylbenzene	3.91	ug/L			4.00	98	80 --- 121		
Hexachlorobutadiene	3.78	ug/L			4.00	94	71 --- 131		
Isopropylbenzene	3.87	ug/L			4.00	97	75 --- 122		
m & p-Xylene	7.73	ug/L			8.00	97	80 --- 121		
Methyl tert-butyl ether	3.59	ug/L			4.00	90	63 --- 135		
Methylene chloride	3.83	ug/L			4.00	96	38 --- 174		
n-Butylbenzene	3.87	ug/L			4.00	97	71 --- 125		
n-Propylbenzene	4.02	ug/L			4.00	100	76 --- 122		
Naphthalene	3.68	ug/L			4.00	92	64 --- 126		
o-Xylene	3.82	ug/L			4.00	96	77 --- 120		
p-Isopropyltoluene	3.96	ug/L			4.00	99	76 --- 122		
sec-Butylbenzene	3.97	ug/L			4.00	99	75 --- 122		
Styrene	3.82	ug/L			4.00	96	76 --- 121		
tert-Butylbenzene	3.97	ug/L			4.00	99	77 --- 120		
Tetrachloroethene	3.85	ug/L			4.00	96	75 --- 127		
Tetrahydrofuran	33.5	ug/L			40.0	84	60 --- 131		
Toluene	3.72	ug/L			4.00	93	80 --- 122		
trans-1,2-Dichloroethene	3.76	ug/L			4.00	94	68 --- 136		
trans-1,3-Dichloropropene	3.38	ug/L			4.00	84	65 --- 126		
Trichloroethene	3.69	ug/L			4.00	92	78 --- 126		
Trichlorofluoromethane	3.82	ug/L			4.00	96	70 --- 145		
Vinyl acetate	36.3	ug/L			40.0	91	38 --- 152		
Vinyl chloride	3.98	ug/L			4.00	100	71 --- 135		

Method Blank Water

Analytical Run #: 132323	Analysis Date: 11/10/2016	Prep Batch #:	Matrix: LIQUID
CTLab #: 803885	Analysis Time: 09:10	Prep Date/Time:	Method: SW8260C
Parent Sample #:	Analyst: RLD	Prep Analyst:	

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	0.04	ug/L		U	0		0.04		
1,1,1-Trichloroethane	0.05	ug/L		U	0		0.05		
1,1,2,2-Tetrachloroethane	0.017	ug/L		U	0		0.017		
1,1,2-Trichloroethane	0.05	ug/L		U	0		0.05		
1,1-Dichloroethane	0.06	ug/L		U	0		0.06		
1,1-Dichloroethene	0.06	ug/L		U	0		0.06		
1,1-Dichloropropene	0.06	ug/L		U	0		0.06		
1,2 Dichloroethane-d4	105	% Recovery			100	105	68 --- 120		
1,2,3-Trichlorobenzene	0.04	ug/L		U	0		0.04		
1,2,3-Trichloropropane	0.04	ug/L		U	0		0.04		
1,2,4-Trichlorobenzene	0.04	ug/L		U	0		0.04		
1,2,4-Trimethylbenzene	0.04	ug/L		U	0		0.04		
1,2-Dibromo-3-chloropropane	0.09	ug/L		U	0		0.09		
1,2-Dibromoethane	0.07	ug/L		U	0		0.07		
1,2-Dichlorobenzene	0.04	ug/L		U	0		0.04		
1,2-Dichloroethane	0.05	ug/L		U	0		0.05		
1,2-Dichloropropane	0.07	ug/L		U	0		0.07		
1,3,5-Trimethylbenzene	0.05	ug/L		U	0		0.05		
1,3-Dichlorobenzene	0.04	ug/L		U	0		0.04		
1,3-Dichloropropane	0.04	ug/L		U	0		0.04		
1,4-Dichlorobenzene	0.04	ug/L		U	0		0.04		
2,2-Dichloropropane	0.05	ug/L		U	0		0.05		
2-Butanone	0.5	ug/L		U	0		0.5		
2-Chlorotoluene	0.03	ug/L		U	0		0.03		
2-Hexanone	0.24	ug/L		U	0		0.24		
4-Chlorotoluene	0.04	ug/L		U	0		0.04		
4-Methyl-2-pentanone	0.24	ug/L		U	0		0.24		
Acetone	0.570	ug/L			0		0.30		
Benzene	0.018	ug/L		U	0		0.018		
Bromobenzene	0.04	ug/L		U	0		0.04		
Bromochloromethane	0.030	ug/L		U	0		0.030		
Bromodichloromethane	0.016	ug/L		U	0		0.016		
Bromofluorobenzene	97.0	% Recovery			100	97.0	68 --- 120		
Bromoform	0.04	ug/L		U	0		0.04		
Bromomethane	0.08	ug/L		U	0		0.08		
Carbon disulfide	0.07	ug/L		U	0		0.07		
Carbon tetrachloride	0.05	ug/L		U	0		0.05		
Chlorobenzene	0.04	ug/L		U	0		0.04		
Chloroethane	0.07	ug/L		U	0		0.07		
Chloroform	0.03	ug/L		U	0		0.03		
Chloromethane	0.04	ug/L		U	0		0.04		
cis-1,2-Dichloroethene	0.07	ug/L		U	0		0.07		

Method Blank Water

Analytical Run #:	132323	Analysis Date:	11/10/2016	Prep Batch #:	Matrix:	LIQUID
CTLab #:	803885	Analysis Time:	09:10	Prep Date/Time:	Method:	SW8260C
Parent Sample #:		Analyst:	RLD	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
cis-1,3-Dichloropropene	0.011	ug/L		U	0		0.011		
d8-Toluene	100	% Recovery			100	100	71 --- 117		
Dibromochloromethane	0.03	ug/L		U	0		0.03		
Dibromofluoromethane	100	% Recovery			100	100	67 --- 122		
Dibromomethane	0.05	ug/L		U	0		0.05		
Dichlorodifluoromethane	0.06	ug/L		U	0		0.06		
Diisopropyl ether	0.04	ug/L		U	0		0.04		
Ethylbenzene	0.04	ug/L		U	0		0.04		
Hexachlorobutadiene	0.05	ug/L		U	0		0.05		
Isopropylbenzene	0.04	ug/L		U	0		0.04		
m & p-Xylene	0.07	ug/L		U	0		0.07		
Methyl tert-butyl ether	0.04	ug/L		U	0		0.04		
Methylene chloride	0.05	ug/L		U	0		0.05		
n-Butylbenzene	0.03	ug/L		U	0		0.03		
n-Propylbenzene	0.04	ug/L		U	0		0.04		
Naphthalene	0.03	ug/L		U	0		0.03		
o-Xylene	0.04	ug/L		U	0		0.04		
p-Isopropyltoluene	0.04	ug/L		U	0		0.04		
sec-Butylbenzene	0.05	ug/L		U	0		0.05		
Styrene	0.03	ug/L		U	0		0.03		
tert-Butylbenzene	0.04	ug/L		U	0		0.04		
Tetrachloroethene	0.05	ug/L		U	0		0.05		
Tetrahydrofuran	0.491	ug/L			0		0.4		
Toluene	0.04	ug/L		U	0		0.04		
trans-1,2-Dichloroethene	0.04	ug/L		U	0		0.04		
trans-1,3-Dichloropropene	0.019	ug/L		U	0		0.019		
Trichloroethene	0.05	ug/L		U	0		0.05		
Trichlorofluoromethane	0.09	ug/L		U	0		0.09		
Vinyl acetate	0.22	ug/L		U	0		0.22		
Vinyl chloride	0.019	ug/L		U	0		0.019		

TETRA TECH

SDG #: 0

Folder #: 123429

Project Name: OCONOMOWOC
ELECTROPLATING
Project Number: 117-7413001.01

Lab Control Spike Water

Analytical Run #:	132540	Analysis Date:	11/10/2016	Prep Batch #:	60107	Matrix:	LIQUID
CTLab #:	803849	Analysis Time:	15:39	Prep Date/Time:	11/10/2016 09:00	Method:	RSK175
Parent Sample #:		Analyst:	agk	Prep Analyst:	AGK		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Acetylene	2.57	ug/L			3.07	84	70 --- 130		20
Ethane	4.68	ug/L			4.78	98	70 --- 130		20
Ethene	6.70	ug/L			6.79	99	65 --- 124		20
Methane	2.34	ug/L			2.30	102	70 --- 130		20

TETRA TECH

SDG #: 0

Folder #: 123429

Project Name: OCONOMOWOC
ELECTROPLATING
Project Number: 117-7413001.01

Method Blank Water

Analytical Run #:	132540	Analysis Date:	11/10/2016	Prep Batch #:	60107	Matrix:	LIQUID
CTLab #:	803848	Analysis Time:	16:09	Prep Date/Time:	11/10/2016 09:00	Method:	RSK175
Parent Sample #:		Analyst:	agk	Prep Analyst:	AGK		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Acetylene	0.23	ug/L		U	0		0.23		
Ethane	0.4	ug/L		U	0		0.4		
Ethene	0.5	ug/L		U	0		0.5		
Methane	0.4	ug/L		U	0		0.4		

TETRA TECH

SDG #: 0

Folder #: 123429

Project Name: OCONOMOWOC

ELECTROPLATING

Project Number: 117-7413001.01

Lab Control Spike Water

Analytical Run #:	132541	Analysis Date:	11/11/2016	Prep Batch #:	60108	Matrix:	LIQUID
CTLab #:	803853	Analysis Time:	14:41	Prep Date/Time:	11/10/2016 09:00	Method:	RSK175
Parent Sample #:		Analyst:	agk	Prep Analyst:	AGK		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Acetylene	2.55	ug/L			3.07	83	70 --- 130		20
Ethane	3.70	ug/L			4.78	77	70 --- 130		20
Ethene	5.37	ug/L			6.79	79	65 --- 124		20
Methane	1.92	ug/L			2.30	83	70 --- 130		20

TETRA TECH

SDG #: 0

Folder #: 123429

Project Name: OCONOMOWOC
ELECTROPLATING
Project Number: 117-7413001.01

Method Blank Water

Analytical Run #:	132541	Analysis Date:	11/11/2016	Prep Batch #:	60108	Matrix:	LIQUID
CTLab #:	803852	Analysis Time:	14:50	Prep Date/Time:	11/10/2016 09:00	Method:	RSK175
Parent Sample #:		Analyst:	agk	Prep Analyst:	AGK		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Acetylene	0.23	ug/L		U	0		0.23		
Ethane	0.4	ug/L		U	0		0.4		
Ethene	0.5	ug/L		U	0		0.5		
Methane	0.4	ug/L		U	0		0.4		

Matrix Spike Duplicate Water

Analytical Run #:	132541	Analysis Date:	11/11/2016	Prep Batch #:	60108	Matrix:	GROUND WATER
CTLab #:	803851	Analysis Time:	15:30	Prep Date/Time:	11/10/2016 09:00	Method:	RSK175
Parent Sample #:	803850	Analyst:	agk	Prep Analyst:	AGK		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Acetylene	2.57	ug/L	BDL		3.07	84	70 --- 130	0	20
Ethane	3.86	ug/L	BDL		4.78	81	70 --- 130	3	20
Ethene	5.77	ug/L	BDL		6.79	85	41 --- 138	3	43
Methane	25.0	ug/L	38		2.30	0	70 --- 130	10	20

TETRA TECH

SDG #: 0

Folder #: 123429

Project Name: OCONOMOWOC
ELECTROPLATING
Project Number: 117-7413001.01

Matrix Spike Water

Analytical Run #:	132541	Analysis Date:	11/11/2016	Prep Batch #:	60108	Matrix:	GROUND WATER
CTLab #:	803850	Analysis Time:	15:20	Prep Date/Time:	11/10/2016 09:00	Method:	RSK175
Parent Sample #:	800740	Analyst:	agk	Prep Analyst:	AGK		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Acetylene	2.57	ug/L	BDL		3.07	84	70 --- 130		
Ethane	3.73	ug/L	BDL		4.78	78	70 --- 130		
Ethene	5.62	ug/L	BDL		6.79	83	41 --- 138		
Methane	22.7	ug/L	38		2.30	0	70 --- 130		

TETRA TECH

SDG #: 0

Folder #: 123429

Project Name: OCONOMOWOC
ELECTROPLATING
Project Number: 117-7413001.01

Lab Control Spike Water

Analytical Run #:	133155	Analysis Date:	11/09/2016	Prep Batch #:	Matrix:	LIQUID
CTLab #:	812411	Analysis Time:	16:46	Prep Date/Time:	Method:	SW8260C
Parent Sample #:		Analyst:	RLD	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
1,4-Dioxane	221	ug/L			200	110	70 --- 130		

TETRA TECH

SDG #: 0

Folder #: 123429

Project Name: OCONOMOWOC
ELECTROPLATING
Project Number: 117-7413001.01

Method Blank Water

Analytical Run #:	133155	Analysis Date:	11/09/2016	Prep Batch #:		Matrix:	LIQUID
CTLab #:	812421	Analysis Time:	18:13	Prep Date/Time:		Method:	SW8260C
Parent Sample #:		Analyst:	RLD	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
1,4-Dioxane	7	ug/L		U	0			7	

TETRA TECH

SDG #: 0

Folder #: 123429

Project Name: OCONOMOWOC
ELECTROPLATING
Project Number: 117-7413001.01

Lab Control Spike Water

Analytical Run #:	133156	Analysis Date:	11/10/2016	Prep Batch #:	Matrix:	LIQUID
CTLab #:	812412	Analysis Time:	08:12	Prep Date/Time:	Method:	SW8260C
Parent Sample #:		Analyst:	RLD	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
1,4-Dioxane	218	ug/L			200	109	70 --- 130		

TETRA TECH

SDG #: 0

Folder #: 123429

Project Name: OCONOMOWOC

ELECTROPLATING

Project Number: 117-7413001.01

Method Blank Water

Analytical Run #:	133156	Analysis Date:	11/10/2016	Prep Batch #:		Matrix:	LIQUID
CTLab #:	812422	Analysis Time:	09:10	Prep Date/Time:		Method:	SW8260C
Parent Sample #:		Analyst:	RLD	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
1,4-Dioxane	7	ug/L		U	0			7	

Sample Condition Report

Folder #: 123429	Print Date / Time: 11/04/2016 11:50
Client: TETRA TECH	Received Date / Time / By: 11/04/2016 11:05 BNA
Project Name: OCONOMOWOC ELECTROPLATING	Log-In Date / Time / By: 11/04/2016 11:50 BNA
Project Phase:	Project #: 117-7413001.01 PM: BMS
Coolers: XXXX	Temperature: 3.5 C On Ice: Y
Custody Seals Present :	COC Present?: Y Complete?: Y
Seal Intact? N	Numbers: NOT PRESENT
Ship Method: FEDEX	Tracking Number: 020177634784110
Adequate Packaging: Y	Temp Blank Enclosed? Y

Notes: THE SAMPLES WERE RECEIVED IN GOOD CONDITION ON ICE.

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
800738 MW-9S	UNPRES PL	1	/	ALK,Anions
	Total # of Containers of Type	(UNPRES PL) = 1		
800738 MW-9S	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	Total # of Containers of Type	(VOA HCL) = 6		
800738 MW-9S	HNO3	1	Y /	ICP
	Total # of Containers of Type	(HNO3) = 1		
800738 MW-9S	H2SO4 PL	1	Y /	TOC
	Total # of Containers of Type	(H2SO4 PL) = 1		

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
800739 MW-9S	HNO3	1	Y /	ICP
	Total # of Containers of Type	(HNO3) = 1		

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
800740 MW-5D	UNPRES PL	1	/	ALK,Anions
	Total # of Containers of Type	(UNPRES PL) = 1		

800740	MW-5D	VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		Total # of Containers of Type		(VOA HCL) = 6	

800740	MW-5D	HNO3	1	Y /	ICP
		Total # of Containers of Type		(HNO3) = 1	

800740	MW-5D	H2SO4 PL	1	Y /	TOC
		Total # of Containers of Type		(H2SO4 PL) = 1	

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
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800741	MW-5D	HNO3	1	Y /	ICP
		Total # of Containers of Type		(HNO3) = 1	

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
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800742	MW-1D	UNPRES PL	1	/	ALK,Anions
		Total # of Containers of Type		(UNPRES PL) = 1	

800742	MW-1D	VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		Total # of Containers of Type		(VOA HCL) = 6	

800742	MW-1D	HNO3	1	Y /	ICP
		Total # of Containers of Type		(HNO3) = 1	

800742	MW-1D	H2SO4 PL	1	Y /	TOC
		Total # of Containers of Type		(H2SO4 PL) = 1	

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
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800744	MW-1S	UNPRES PL	1	/	ALK,Anions
		Total # of Containers of Type		(UNPRES PL) = 1	

800744	MW-1S	VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		Total # of Containers of Type		(VOA HCL) = 6	

800744	MW-1S	HNO3	1	Y /	ICP
		Total # of Containers of Type		(HNO3) = 1	

800744	MW-1S	H2SO4 PL	1	Y /	TOC
		Total # of Containers of Type		(H2SO4 PL) = 1	

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
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800745	MW-1S	HNO3	1	Y /	ICP
		Total # of Containers of Type		(HNO3) = 1	

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
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800746	MW-14DR	UNPRES PL	1	/	ALK,Anions
		Total # of Containers of Type		(UNPRES PL) = 1	

800746	MW-14DR	VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		Total # of Containers of Type		(VOA HCL) = 6	

800746	MW-14DR	HNO3	1	Y /	ICP
		Total # of Containers of Type		(HNO3) = 1	

800746	MW-14DR	H2SO4 PL	1	Y /	TOC
		Total # of Containers of Type		(H2SO4 PL) = 1	

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
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800747	MW-14DR	HNO3	1	Y /	ICP
		Total # of Containers of Type		(HNO3) = 1	

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
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800748 MW-101B
 UNPRES PL 1 / ALK,Anions
Total # of Containers of Type (UNPRES PL) = 1

800748 MW-101B
 VOA HCL 1 / GAS,VOC
 VOA HCL 1 / GAS,VOC
 VOA HCL 1 / GAS,VOC
 VOA HCL 1 / GAS,VOC
 VOA HCL 1 / GAS,VOC
 VOA HCL 1 / GAS,VOC
Total # of Containers of Type (VOA HCL) = 6

800748 MW-101B
 HNO3 1 Y / ICP
Total # of Containers of Type (HNO3) = 1

800748 MW-101B
 H2SO4 PL 1 Y / TOC
Total # of Containers of Type (H2SO4 PL) = 1

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
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800749 MW-101B
 HNO3 1 Y / ICP
Total # of Containers of Type (HNO3) = 1

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
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800750 MW-101S
 UNPRES PL 1 / ALK,Anions
Total # of Containers of Type (UNPRES PL) = 1

800750 MW-101S
 VOA HCL 1 / GAS,VOC
 VOA HCL 1 / GAS,VOC
 VOA HCL 1 / GAS,VOC
 VOA HCL 1 / GAS,VOC
 VOA HCL 1 / GAS,VOC
 VOA HCL 1 / GAS,VOC
Total # of Containers of Type (VOA HCL) = 6

800750 MW-101S
 HNO3 1 Y / ICP
Total # of Containers of Type (HNO3) = 1

800750 MW-101S
 H2SO4 PL 1 Y / TOC
Total # of Containers of Type (H2SO4 PL) = 1

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
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800751	MW-101S	HNO3	1	Y	/	ICP
		Total # of Containers of Type	(HNO3) = 1			
Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?		Tests	
800752	MW-102D	UNPRES PL	1		/	ALK,Anions
		Total # of Containers of Type	(UNPRES PL) = 1			
800752	MW-102D	VOA HCL	1		/	GAS,VOC
		VOA HCL	1		/	GAS,VOC
		VOA HCL	1		/	GAS,VOC
		VOA HCL	1		/	GAS,VOC
		VOA HCL	1		/	GAS,VOC
		VOA HCL	1		/	GAS,VOC
		Total # of Containers of Type	(VOA HCL) = 6			
800752	MW-102D	HNO3	1	Y	/	ICP
		Total # of Containers of Type	(HNO3) = 1			
800752	MW-102D	H2SO4 PL	1	Y	/	TOC
		Total # of Containers of Type	(H2SO4 PL) = 1			
Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?		Tests	
800753	MW-102D	HNO3	1	Y	/	ICP
		Total # of Containers of Type	(HNO3) = 1			
Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?		Tests	
800754	MW-102S	UNPRES PL	1		/	ALK,Anions
		Total # of Containers of Type	(UNPRES PL) = 1			
800754	MW-102S	VOA HCL	1		/	GAS,VOC
		VOA HCL	1		/	GAS,VOC
		VOA HCL	1		/	GAS,VOC
		VOA HCL	1		/	GAS,VOC
		VOA HCL	1		/	GAS,VOC
		VOA HCL	1		/	GAS,VOC
		Total # of Containers of Type	(VOA HCL) = 6			
800754	MW-102S	HNO3	1	Y	/	ICP
		Total # of Containers of Type	(HNO3) = 1			
800754	MW-102S					

H2SO4 PL 1 Y /
Total # of Containers of Type (H2SO4 PL) = 1

TOC

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
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800755 MW-102S	HNO3	1	Y /	ICP
Total # of Containers of Type (HNO3) = 1				

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
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800756 TB-3	Trip Blank	1	/	VOC
	Trip Blank	1	/	VOC
	Trip Blank	1	/	VOC
Total # of Containers of Type (Trip Blank) = 3				

Condition Code Condition Description
 1 Sample Received OK

Company: Tetra Tech
 Project Contact: Mark Mantney
 Telephone: 262 792 1282
 Project Name: Oconomowoc Electroplating
 Project #: 17-7413001.01
 Location: Oconomowoc WI
 Sampled By: Ashley Kowalewski

1230 Lange Court, Baraboo, WI 53913
 608-356-2760 Fax 608-356-2766
 www.ctlaboratories.com

Folder #: 123429
 Company: TETRA TECH
 Project: OCONOMOWOC ELECT
 Logged By: RNA PM RM

Report To:
 EMAIL: mark.mantney@tetratech.com
 Company: Tetra Tech
 Address: 175 N Corporate Dr #100
 Brookfield WI 53005
 Invoice To: *
 EMAIL:
 Company:
 Address:

*Party listed is responsible for payment of invoice as per CT Laboratories' terms and conditions

Client Special Instructions
 Field filtered = ICP metals dissolved

Filtered? Y/N	ANALYSES REQUESTED										Total # Containers	Designated MS/MSD
	VOL 8&100	ICP metals total	ICP metals dissolved	TOC	RSK 175 metals, ctnk, ethyl acetate	alk, chloride, sulfate						
Y	3	3	1	1	1	1						10
Y	3	3	1	1	1	1						10
Y	3	3	1	1	1	1						9
Y	3	3	1	1	1	1						10
Y	3	3	1	1	1	1						10
Y	3	3	1	1	1	1						10
Y	3	3	1	1	1	1						10
Y	3	3	1	1	1	1						10
Y	3	3	1	1	1	1						10
Y	3	3	1	1	1	1						10
Y	3	3	1	1	1	1						10
N	3											3

Turnaround Time
 Normal RUSH*
 Date Needed: _____
 Rush analysis requires prior CT Laboratories' approval
 Surcharges:
 24 hr 200%
 2-3 days 100%
 4-9 days 50%

Matrix:
 GW - groundwater SW - surface water WW - wastewater DW - drinking water
 S - soil/sediment SL - sludge A - air M - misc/waste

20 Collection		Matrix	Grab/Comp	Sample #	Sample ID Description	Filtered? Y/N	Fill in Spaces with Bottles per Test										CT Lab ID # Lab use only								
Date	Time						VOL 8&100	ICP metals total	ICP metals dissolved	TOC	RSK 175 metals, ctnk, ethyl acetate	alk, chloride, sulfate													
11-3	1030	GW	grab	1	MW-9S	Y	3	3	1	1	1	1													800738/800739
	1115			2	MW-5D	Y	3	3	1	1	1	1													800740/800741
	1205			3	MW-1D	Y	3	3	1	1	1	1													800742
	1250			4	MW-1S	Y	3	3	1	1	1	1													800744/800745
	1355			5	MW-14 DR	Y	3	3	1	1	1	1													800746/800747
	1445			6	MW-101B	Y	3	3	1	1	1	1													800748/800749
	1515			7	MW-101S	Y	3	3	1	1	1	1													800750/800751
	1615			8	MW-102D	Y	3	3	1	1	1	1													800752/800753
	1650			9	MW-102S	Y	3	3	1	1	1	1													800754/800755
		DI		10	TB-3	N	3																		800756

Relinquished By: Ashley Kowalewski Date/Time: 11-3-16 1845
 Received By: [Signature] Date/Time: 11-4-16 1150
 Received for Laboratory by: [Signature] Date/Time: 11-4-16 1150

Lab Use Only
 Ice Present Yes No
 Temp 3.5 IR Gun 16
 Cooler # XXXX

11-4-16 1105

CT Laboratories Terms and Conditions

Where a purchaser (Client) places an order for laboratory, consulting or sampling services from CT Laboratories (CTL), CTL shall provide the ordered services pursuant to these Terms and Conditions, and the related Quotation, or as agreed in a negotiated contract. In the absence of a written agreement to the contrary, the Order constitutes an acceptance by the Client of CTL's offer to do business under these Terms and Conditions, and an agreement to be bound by these Terms and Conditions. No contrary or additional terms and conditions expressed in a Client's document shall be deemed to become a part of the contract created upon acceptance of these Terms and Conditions, unless accepted by CTL in advance of the start of the project and in writing.

1. ORDERS AND RECEIPT OF SAMPLES (Sample Acceptance Policy)

1.1 The Client may place the Order (i.e., specify a Scope of Work) either by submitting a purchase order to CTL in writing, by telephone (confirmed in writing) or by negotiated contract. Whichever option the Client selects for placing the Order, the Order shall not be valid unless it contains sufficient specification to enable CTL to carry out the Client's requirements. It is the policy of CT Laboratories that samples not meeting the acceptance criteria, outlined in the NELAC standards and Section 5.8.3.2 of the DOD QSM, will not be accepted by the laboratory or will be qualified on the final report. All samples submitted to the laboratory must: (1) be accompanied by proper, full and complete documentation, including sample identification, location, date and time of collection, the collector's name, type of preservation (if any), type of sample, any special comments concerning the sample and any additional pertinent fields on the chain-of-custody. In the absence of any of the required information, the laboratory will attempt to contact the client to obtain the information; if unable to obtain the necessary information, the final report will be qualified. (2) be labeled appropriately with a unique sample identification written with indelible ink on water resistant labels. If the laboratory cannot determine the identity of a sample, it will be rejected and the client will be contacted for further instructions or resampling. (3) be in an appropriate sample container. If the container is inappropriate, the client will be contacted for further instructions or resampling. If analysis is possible, the final report will be qualified. CT Laboratories can provide a sampling guide containing approved containers and preservations for analytical methods requested. (4) adhere to specified holding times. If samples are received with less than 1/2 the holding time remaining for the requested test, CT Laboratories will make its best effort to analyze the samples and notify the client. If holding times are exceeded, the final report will be qualified. (5) contain adequate sample volume to perform the necessary testing. If sufficient volume is not present, the sample will be rejected and the client will be contacted for further instructions or resampling. If samples show signs of damage, contamination or inadequate preservation, the client will be notified. If analysis can be performed, the final report will be qualified. If not, the samples will be rejected and the client notified for further instructions or resampling.

1.2 CT Laboratories must be supplied with complete written disclosure of the known or suspected presence of any hazardous substances, as defined by applicable federal or state law. Where any samples which were not accompanied by the required disclosure, cause interruptions in the lab's ability to process work due to contamination of instruments or work areas, the Client will be responsible for the costs of clean up and recovery.

1.3 Prior to Sample Acceptance, the entire risk of loss or damage to samples remains with the Client. In no event will CTL have any responsibility or liability for the action or inaction of any carrier shipping or delivering any sample to or from CTL's premises. Client is responsible to assure that any sample containing any hazardous substance which is to be delivered to CTL's premises will be packaged, labeled, transported and delivered properly and in accordance with applicable laws.

2. PAYMENT TERMS

2.1 Services performed by CTL will be in accordance with prices quoted and later confirmed in writing or as stated in the Price Schedule. Invoices may be submitted to Client upon completion of any sample delivery group. Payment in advance is required for all Clients except those whose credit has been established with CTL. For Clients with approved credit, payment terms are net 30 days from the date of invoice by CTL. All overdue payments are subject to an additional interest and service charge of one and one-half percent (1.5%) (or the maximum rate permissible by law, whichever is lesser) per month or portion thereof from the due date until the date of payment. All fees are charged or billed directly to the Client. The billing of a third party will not be accepted without a statement, signed by the third party that acknowledges and accepts payment responsibility. CTL may suspend work and withhold delivery of data under this order at any time in the event Client fails to make timely payment of its invoices. Client shall be responsible for all costs and expenses of collection including reasonable attorney's fees. CTL reserves the right to refuse to proceed with work at any time based upon an unfavorable Client credit report.

3. CHANGE ORDERS, TERMINATION

3.1 Changes to the Scope of Work, price, or result delivery date may be initiated by CTL after Sample Acceptance due to any condition which conflicts with analytical, QA or other protocols warranted in these Terms and Conditions. CTL will not proceed with such changes until an agreement with the Client is reached on the amount of any cost, schedule change or technical change to the Scope of Work, and such agreement is documented in writing.

3.2 Changes to the Scope of Work, including but not limited to increasing or decreasing the work, changing test and analysis specification or acceleration in the performance of the work may be initiated by the Client after sample acceptance. Such a change will be documented in writing and may result in a change in cost and turnaround time commitment. CTL's acceptance of such changes is contingent upon technical feasibility and operational capacity.

3.3 Suspension or termination of all or any part of the work may be initiated by the Client. CTL will be compensated consistent with Section 2 of these Terms and Conditions. CTL will complete all work in progress and be paid in full for all work completed.

4. WARRANTIES AND LIABILITY

4.1 Where applicable, CTL will use analytical methodologies which are in substantial conformity with published test methods. CTL has implemented these methods in its Laboratory Quality Manuals and referenced Standard Operating Procedures and where the nature or composition of the sample requires it, CTL reserves the right to deviate from these methodologies as necessary or appropriate, based on the reasonable judgment of CTL, which deviations, if any, will be made on a basis consistent with recognized standards of the industry and/or CTL's Laboratory Quality Manuals. Client may request that CTL perform according to a mutually agreed Quality Assurance Project Plan (QAPP). In the event that samples arrive prior to agreement on a QAPP, CTL will proceed with analyses under its standard Quality Manuals then in effect, and CTL will not be responsible for any resampling or other charges if work must be repeated to comply with a subsequently finalized QAPP.

4.2 CTL shall start preparation and/or analysis within holding times provided that Sample Acceptance occurs within 48 hours of sampling or 1/2 of the holding time for the test, whichever is less. Where resolution of inconsistencies leading to Sample Acceptance does not occur within this period, CTL will use its best efforts to meet holding times and will proceed with the work provided that, in CTL's judgment, the chain-of-custody or definition of the Scope of Work provide sufficient guidance. Reanalysis of samples to comply with CTL's Quality Manuals will be deemed to have met holding times provided the initial analysis was performed within the applicable holding time. Where reanalysis demonstrates that sample matrix interference is the cause of failure to meet any Quality Manual requirements, the warranty will be deemed to have been met.

4.3 CTL warrants that it possesses and maintains all licenses and certifications which are required to perform services under these Terms and Conditions provided that such requirements are specified in writing to CTL prior to Sample Acceptance. CTL will notify the Client in writing of any certification or revocation of any license, or notice of either, which affects work in progress.

4.4 The warranty obligations set forth in Sections 4.1, 4.2 and 4.3 are the sole and exclusive warranties given by CTL in connection with any services performed by CTL or any Results generated from such services, and CTL gives and makes NO OTHER REPRESENTATION OR WARRANTY OF ANY KIND, EXPRESS OR IMPLIED. No representative of CTL is authorized to give or make any other representation or warranty or modify this warranty in any way.

4.5 Client's sole and exclusive remedy for the breach of warranty in connection with any services performed by CTL, will be limited to repeating any services performed, contingent on the Client's providing, at the request of CTL and at the Client's expense, additional sample(s) if necessary. Any reanalysis requested by the Client generating Results consistent with the original Results will be at the Client's expense. If resampling is necessary, CTL's liability for resampling costs will be limited to actual cost or one hundred or one hundred fifty dollars (\$150) per sample, whichever is less.

4.6 CTL's liability for any and all causes of action arising hereunder, whether based in contract, tort, warranty, negligence or otherwise, shall be limited to the lesser amount of compensation for the services performed or \$100,000. All claims, including those for negligence, shall be deemed waived unless suit thereon is filed within one year after CTL's completion of the services. Under no circumstances, whether arising in contract, tort (including negligence), or otherwise, shall CTL be responsible for loss of use, loss of profits, or for any special, indirect, incidental or consequential damages occasioned by the services performed or by application or use of the reports prepared.

4.7 In no event shall CTL have any responsibility or liability to the Client for any failure or delay in performance by CTL which results, directly or indirectly, in whole or in part, from any cause or circumstance beyond the reasonable control of CTL. Such causes and circumstances shall include, but not be limited to, acts of God, acts of Client, acts or orders of any governmental authority, strikes or other labor disputes, natural disasters, accidents, wars, civil disturbances, equipment breakdown, matrix interference or unknown highly contaminated samples that impact instrument operation, unavailability of supplies from usual suppliers, difficulties or delays in transportation, mail or delivery services, or any other cause beyond CTL's reasonable control.

5. RESULTS, WORK PRODUCT

5.1 Data or information provided to CTL or generated by services performed under this agreement shall only become the property of the Client upon receipt in full by CTL of payment for the whole Order. Ownership of any analytical method, QA/QC protocols, software programs or equipment developed by CTL for performance of work will be retained by CTL, and Client shall not disclose such information to any third party.

5.2 Data and sample materials provided by Client or at Client's request, and the result obtained by CTL shall be held in confidence (unless such information is generally available to the public or is in the public domain or Client has failed to pay CTL for all services rendered or is otherwise in breach of these Terms and Conditions), subject to any disclosure required by law or legal process.

5.3 Should the Results delivered by CTL be used by the Client or Client's client, even though subsequently determined not to meet the warranties described in these Terms and Conditions, then the compensation will be adjusted based upon mutual agreement. In no case shall the Client unreasonably withhold CTL's right to independently defend its data.

5.4 CTL reserves the right to subcontract services ordered by the Client to another laboratory or laboratories, if, in CTL's sole judgment, it is reasonably necessary, appropriate or advisable to do so, and with the Client's permission. CTL will in no way be liable for any subcontracted services and all applicable warranties, guarantees and insurance are those of the subcontracted laboratory.

5.5 CTL shall dispose of the Client's samples 30 days after the analytical report is issued, unless instructed to store them for an alternate period of time or to return such samples to the Client, in a manner consistent with U.S. Environmental Protection Agency regulations or other applicable Federal, state or local requirements. Any samples for projects that are canceled or not accepted, or for which return was requested, will be returned to the Client at their own expense. CTL reserves the right to return to the Client any sample or unused portion of a sample that is not within CTL's permitted capability or the capabilities of CTL's designated waste disposal vendor(s).

5.6 Unless a different time period is agreed to in any order under these Terms and Conditions, CTL agrees to retain all records for five (5) years.

5.7 In the event that CTL is required to respond to legal process related to services for Client, Client agrees to reimburse CTL for hourly charges for personnel involved in the response and attorney fees reasonably incurred in obtaining advice concerning the response, preparation to testify, and appearances related to the legal process, travel and all reasonable expenses associated with the litigation.

6. INSURANCE

6.1 CTL shall maintain in force during the performance of services under these Terms and Conditions, Workers' Compensation and Employer's Liability Insurance in accordance with the laws of the states having jurisdiction over CTL's employees who are engaged in the performance of the work. CTL shall also maintain during such period, Comprehensive General and Contractual Liability (limit of \$2,000,000 per occurrence/aggregate), Comprehensive Automobile Liability, owned and hired, (\$1,000,000 combined single limit), and Professional/Pollution Liability Insurance (limit of \$5,000,000 per occurrence/aggregate). Any Client required changes to these limits or conditions may result in a change in cost to the Client.

7. AUDIT

7.1 Upon prior notice to CTL, the Client may audit and inspect CTL's records and accounts covering reimbursable costs related to work done for the Client, for a period of one (1) year after completion of the work. The purpose of any such audit shall be only for verification of such costs, and CTL shall not be required to provide access to cost records where prices are expressed as fixed fees or published unit prices.

ORIGIN ID: RRLA (262) 792-1282
ASHLEY KOWALEWSKI
TETRA TECH
175 N CORPORATE DRIVE
STE 100
BROOKFIELD, WI 53045
UNITED STATES US

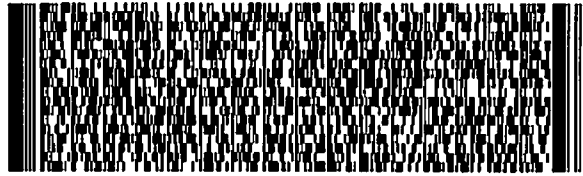
SHIP DATE: 03NOV16
ACTWGT: 47.00 LB
CAD: 1104355/NET3790
DIMS: 25x14x15 IN
BILL SENDER

TO **BRETT SZYMANSKI**
CT LABORATORIES
1230 LANGE COURT

544.0250614E8

BARABOO WI 53913

(608) 356-2766 REF: 117-7413001 01
INV PO DEPT

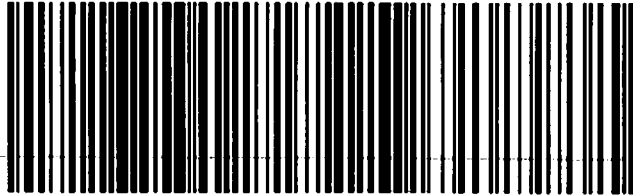


FRI - 04 NOV 10:30A
PRIORITY OVERNIGHT

TRK# 7776 3478 4110
0201

55 MSNA

DSR
53913
wi-us MSN



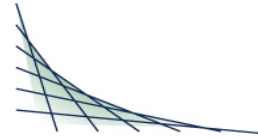
3.50 C
XXX
11-4-16
1105
3A

After printing this label:

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2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

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ANALYTICAL REPORT

This report at a minimum contains the following information:

- Analytical Report of Test Results
- Description of QC Qualifiers
- Chain of Custody (copy)
- Quality Control Summary
- Case Narrative (if applicable)
- Correspondence with Client (if applicable)

This report has been specifically prepared to satisfy project or program requirements. These results are in compliance with NELAC requirements for parameters where accreditation is required or available, unless otherwise noted in the case narrative.



ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase:
 Project #: 117-7413001.01
 Folder #: 123492
 Purchase Order #:
 Contract #: 2747

Page 1 of 5
 Arrival Temperature: 1.5
 Report Date: 11/30/2016
 Date Received: 11/08/2016
 Reprint Date: 11/30/2016

CT LAB#: 802543	Sample Description: MW-15B	DNR License/Well #: 4189/034	Sampled: 11/04/2016 1215
-----------------	----------------------------	------------------------------	--------------------------

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Field Results										
Dissolved Oxygen (Field)	0.29	mg/L	N/A	N/A	1			11/04/2016 00:00	BMS	
Depth to Groundwater (Field)	12.97	Feet	N/A	N/A	1			11/04/2016 00:00	BMS	
OX/REDOX (Field)	-115	MV	N/A	N/A	1			11/04/2016 00:00	BMS	
Color (Field)	CLEAR		N/A	N/A	1			11/04/2016 00:00	BMS	FIELD
Conductivity (Field)	695	umhos/cm	N/A	N/A	1			11/04/2016 00:00	BMS	FIELD
Groundwater Elevation (Field)	841.38	Feet MSL	N/A	N/A	1			11/04/2016 00:00	BMS	FIELD
pH (Field)	7.33	S.U.	N/A	N/A	1			11/04/2016 00:00	BMS	FIELD
Temperature (Field)	3.20	Deg. C	N/A	N/A	1			11/04/2016 00:00	BMS	FIELD
Turbidity (Field)	CLEAR		N/A	N/A	1			11/04/2016 00:00	BMS	FIELD
Inorganic Results										
Alkalinity Total	450	mg/L	5.0	18	1			11/11/2016 11:21	SAW	EPA 310.2
Total Chloride	8.6	mg/L	0.70	2.4	1			11/10/2016 01:15	JJF	EPA 9056A
Total Sulfate	<1.0	mg/L	1.0	3.2	1	U		11/10/2016 01:15	JJF	EPA 9056A
Total Organic Carbon	1.1	mg/L	0.50	1.7	1	J		11/17/2016 10:00	JJF	EPA 9060A
Metals Results										

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

The depth to groundwater and groundwater elevation results listed above are from a previous sampling round and therefore incorrect.

CT LAB#: 802543 Sample Description:MW-15B

DNR License/Well #: 4189/034

Sampled: 11/04/2016 1215

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Total Iron	2.35	mg/L	0.034	0.11	1		11/10/2016 15:00	11/11/2016 22:51	NAH	EPA 6010C
Total Manganese	429	ug/L	3.4	11	1		11/10/2016 15:00	11/11/2016 22:51	NAH	EPA 6010C
Organic Results										
Acetylene	<0.23	ug/L	0.23	0.77	1	U	11/10/2016 09:00	11/14/2016 10:24	agk	Mod RSK 175
Ethane	<0.40	ug/L	0.40	1.2	1	U	11/10/2016 09:00	11/14/2016 10:24	agk	Mod RSK 175
Ethene	<0.50	ug/L	0.50	1.8	1	U	11/10/2016 09:00	11/14/2016 10:24	agk	Mod RSK 175
Methane	210	ug/L	40	120	100		11/10/2016 09:00	11/14/2016 10:33	AGK	Mod RSK 175
1,1,1,2-Tetrachloroethane	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 22:04	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.050	ug/L	0.050	0.17	1	U		11/10/2016 22:04	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.017	ug/L	0.017	0.057	1	U		11/10/2016 22:04	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.050	ug/L	0.050	0.16	1	U		11/10/2016 22:04	RLD	EPA 8260C
1,1-Dichloroethane	<0.060	ug/L	0.060	0.19	1	U		11/10/2016 22:04	RLD	EPA 8260C
1,1-Dichloroethene	<0.060	ug/L	0.060	0.20	1	U		11/10/2016 22:04	RLD	EPA 8260C
1,1-Dichloropropene	<0.060	ug/L	0.060	0.19	1	U		11/10/2016 22:04	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 22:04	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.040	ug/L	0.040	0.14	1	U M		11/10/2016 22:04	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.040	ug/L	0.040	0.12	1	U		11/10/2016 22:04	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.040	ug/L	0.040	0.12	1	U		11/10/2016 22:04	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.090	ug/L	0.090	0.29	1	U		11/10/2016 22:04	RLD	EPA 8260C
1,2-Dibromoethane	<0.070	ug/L	0.070	0.23	1	U		11/10/2016 22:04	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 22:04	RLD	EPA 8260C
1,2-Dichloroethane	<0.050	ug/L	0.050	0.18	1	U		11/10/2016 22:04	RLD	EPA 8260C
1,2-Dichloropropane	<0.070	ug/L	0.070	0.23	1	U		11/10/2016 22:04	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<0.050	ug/L	0.050	0.16	1	U		11/10/2016 22:04	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 22:04	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 802543 Sample Description:MW-15B

DNR License/Well #: 4189/034

Sampled: 11/04/2016 1215

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,3-Dichloropropane	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 22:04	RLD	EPA 8260C
1,4-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 22:04	RLD	EPA 8260C
2,2-Dichloropropane	<0.050	ug/L	0.050	0.15	1	U		11/10/2016 22:04	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.5	1	U		11/10/2016 22:04	RLD	EPA 8260C
2-Chlorotoluene	<0.030	ug/L	0.030	0.11	1	U		11/10/2016 22:04	RLD	EPA 8260C
2-Hexanone	<0.24	ug/L	0.24	0.81	1	U		11/10/2016 22:04	RLD	EPA 8260C
4-Chlorotoluene	<0.040	ug/L	0.040	0.12	1	U		11/10/2016 22:04	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.24	ug/L	0.24	0.82	1	U		11/10/2016 22:04	RLD	EPA 8260C
Acetone	<0.30	ug/L	0.30	1.0	1	U		11/10/2016 22:04	RLD	EPA 8260C
Benzene	<0.018	ug/L	0.018	0.059	1	U		11/10/2016 22:04	RLD	EPA 8260C
Bromobenzene	<0.040	ug/L	0.040	0.15	1	U		11/10/2016 22:04	RLD	EPA 8260C
Bromochloromethane	<0.030	ug/L	0.030	0.099	1	U		11/10/2016 22:04	RLD	EPA 8260C
Bromodichloromethane	<0.016	ug/L	0.016	0.054	1	U		11/10/2016 22:04	RLD	EPA 8260C
Bromoform	<0.040	ug/L	0.040	0.12	1	U		11/10/2016 22:04	RLD	EPA 8260C
Bromomethane	<0.080	ug/L	0.080	0.28	1	U	M,Z	11/10/2016 22:04	RLD	EPA 8260C
Carbon disulfide	<0.070	ug/L	0.070	0.25	1	U		11/10/2016 22:04	RLD	EPA 8260C
Carbon tetrachloride	<0.050	ug/L	0.050	0.18	1	U		11/10/2016 22:04	RLD	EPA 8260C
Chlorobenzene	<0.040	ug/L	0.040	0.15	1	U		11/10/2016 22:04	RLD	EPA 8260C
Chloroethane	<0.070	ug/L	0.070	0.23	1	U		11/10/2016 22:04	RLD	EPA 8260C
Chloroform	<0.030	ug/L	0.030	0.11	1	U		11/10/2016 22:04	RLD	EPA 8260C
Chloromethane	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 22:04	RLD	EPA 8260C
cis-1,2-Dichloroethene	<0.070	ug/L	0.070	0.23	1	U		11/10/2016 22:04	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.011	ug/L	0.011	0.038	1	U		11/10/2016 22:04	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1	U		11/10/2016 22:04	RLD	EPA 8260C
Dibromomethane	<0.050	ug/L	0.050	0.17	1	U		11/10/2016 22:04	RLD	EPA 8260C
Dichlorodifluoromethane	<0.060	ug/L	0.060	0.19	1	U		11/10/2016 22:04	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 802543 Sample Description:MW-15B

DNR License/Well #: 4189/034

Sampled: 11/04/2016 1215

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Diisopropyl ether	<0.040	ug/L	0.040	0.14	1	U	11/10/2016 22:04	11/10/2016 22:04	RLD	EPA 8260C
Ethylbenzene	<0.040	ug/L	0.040	0.15	1	U	11/10/2016 22:04	11/10/2016 22:04	RLD	EPA 8260C
Hexachlorobutadiene	<0.050	ug/L	0.050	0.16	1	U	11/10/2016 22:04	11/10/2016 22:04	RLD	EPA 8260C
Isopropylbenzene	<0.040	ug/L	0.040	0.12	1	U	11/10/2016 22:04	11/10/2016 22:04	RLD	EPA 8260C
m & p-Xylene	<0.070	ug/L	0.070	0.23	1	U	11/10/2016 22:04	11/10/2016 22:04	RLD	EPA 8260C
Methyl tert-butyl ether	<0.040	ug/L	0.040	0.12	1	U	11/10/2016 22:04	11/10/2016 22:04	RLD	EPA 8260C
Methylene chloride	<0.050	ug/L	0.050	0.16	1	U	11/10/2016 22:04	11/10/2016 22:04	RLD	EPA 8260C
n-Butylbenzene	<0.030	ug/L	0.030	0.11	1	U	11/10/2016 22:04	11/10/2016 22:04	RLD	EPA 8260C
n-Propylbenzene	<0.040	ug/L	0.040	0.13	1	U	11/10/2016 22:04	11/10/2016 22:04	RLD	EPA 8260C
Naphthalene	<0.030	ug/L	0.030	0.10	1	U	11/10/2016 22:04	11/10/2016 22:04	RLD	EPA 8260C
o-Xylene	<0.040	ug/L	0.040	0.14	1	U	11/10/2016 22:04	11/10/2016 22:04	RLD	EPA 8260C
p-Isopropyltoluene	<0.040	ug/L	0.040	0.13	1	U	11/10/2016 22:04	11/10/2016 22:04	RLD	EPA 8260C
sec-Butylbenzene	<0.050	ug/L	0.050	0.16	1	U	11/10/2016 22:04	11/10/2016 22:04	RLD	EPA 8260C
Styrene	<0.030	ug/L	0.030	0.11	1	U	11/10/2016 22:04	11/10/2016 22:04	RLD	EPA 8260C
tert-Butylbenzene	<0.040	ug/L	0.040	0.14	1	U	11/10/2016 22:04	11/10/2016 22:04	RLD	EPA 8260C
Tetrachloroethene	<0.050	ug/L	0.050	0.18	1	U	11/10/2016 22:04	11/10/2016 22:04	RLD	EPA 8260C
Tetrahydrofuran	<0.40	ug/L	0.40	1.5	1	U	11/10/2016 22:04	11/10/2016 22:04	RLD	EPA 8260C
Toluene	<0.040	ug/L	0.040	0.13	1	U	11/10/2016 22:04	11/10/2016 22:04	RLD	EPA 8260C
trans-1,2-Dichloroethene	<0.040	ug/L	0.040	0.14	1	U	11/10/2016 22:04	11/10/2016 22:04	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.019	ug/L	0.019	0.063	1	U	11/10/2016 22:04	11/10/2016 22:04	RLD	EPA 8260C
Trichloroethene	<0.050	ug/L	0.050	0.17	1	U	11/10/2016 22:04	11/10/2016 22:04	RLD	EPA 8260C
Trichlorofluoromethane	<0.090	ug/L	0.090	0.14	1	U	11/10/2016 22:04	11/10/2016 22:04	RLD	EPA 8260C
Vinyl acetate	<0.22	ug/L	0.22	0.73	1	U	11/10/2016 22:04	11/10/2016 22:04	RLD	EPA 8260C
Vinyl chloride	<0.019	ug/L	0.019	0.064	1	U	11/10/2016 22:04	11/10/2016 22:04	RLD	EPA 8260C
1,4-Dioxane	<7.0	ug/L	7.0	23	1	U	11/10/2016 22:04	11/10/2016 22:04	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications
Kansas NELAP ID# E-10368
Kentucky ID# 0023
ISO/IEC 17025-2005 A2LA Cert # 3806.01
North Carolina ID# 674
Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID E8711111, Expires Annually
Louisiana ID # 115843
Virginia ID# 7608
Illinois NELAP ID # 002413
Wisconsin (WOSB) ID# WI-5499-WBE
Maryland ID# 344

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase:
 Project #: 117-7413001.01
 Folder #: 123492
 Purchase Order #:
 Contract #: 2747

Page 1 of 2
 Arrival Temperature: 1.5
 Report Date: 11/30/2016
 Date Received: 11/08/2016
 Reprint Date: 11/30/2016

CT LAB#: 802544	Sample Description: MW-15B	DNR License/Well #: 4189/034	Sampled: 11/04/2016 1215
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Metals Results										
Dissolved Iron	2.41	mg/L	0.059	0.20	1		11/10/2016 04:30	11/10/2016 04:30	NAH	EPA 6010C
Dissolved Manganese	411	ug/L	2.2	7.3	1		11/10/2016 04:30	11/10/2016 04:30	NAH	EPA 6010C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications
Kansas NELAP ID# E-10368
Kentucky ID# 0023
ISO/IEC 17025-2005 A2LA Cert # 3806.01
North Carolina ID# 674
Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID E8711111, Expires Annually
Louisiana ID # 115843
Virginia ID# 7608
Illinois NELAP ID # 002413
Wisconsin (WOSB) ID# WI-5499-WBE
Maryland ID# 344

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase:
 Project #: 117-7413001.01
 Folder #: 123492
 Purchase Order #:
 Contract #: 2747

Page 1 of 5
 Arrival Temperature: 1.5
 Report Date: 11/30/2016
 Date Received: 11/08/2016
 Reprint Date: 11/30/2016

CT LAB#: 802546	Sample Description: MW-15S	DNR License/Well #: 4189/033	Sampled: 11/04/2016 1205
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Field Results										
Dissolved Oxygen (Field)	8.71	mg/L	N/A	N/A	1			11/04/2016 00:00	BMS	
Depth to Groundwater (Field)	8.11	Feet	N/A	N/A	1			11/04/2016 00:00	BMS	
OX/REDOX (Field)	114	MV	N/A	N/A	1			11/04/2016 00:00	BMS	
Color (Field)	CLEAR		N/A	N/A	1			11/04/2016 00:00	BMS	FIELD
Conductivity (Field)	528	umhos/cm	N/A	N/A	1			11/04/2016 00:00	BMS	FIELD
Groundwater Elevation (Field)	846.57	Feet MSL	N/A	N/A	1			11/04/2016 00:00	BMS	FIELD
pH (Field)	7.43	S.U.	N/A	N/A	1			11/04/2016 00:00	BMS	FIELD
Temperature (Field)	6.43	Deg. C	N/A	N/A	1			11/04/2016 00:00	BMS	FIELD
Turbidity (Field)	CLEAR		N/A	N/A	1			11/04/2016 00:00	BMS	FIELD
Inorganic Results										
Alkalinity Total	290	mg/L	5.0	18	1			11/11/2016 11:22	SAW	EPA 310.2
Total Chloride	34	mg/L	0.70	2.4	1			11/10/2016 20:33	JJF	EPA 9056A
Total Sulfate	6.8	mg/L	1.0	3.2	1			11/12/2016 02:13	JJF	EPA 9056A
Total Organic Carbon	1.4	mg/L	0.50	1.7	1	J		11/17/2016 10:12	JJF	EPA 9060A
Metals Results										

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

The depth to groundwater and groundwater elevation results listed above are from a previous sampling round and therefore incorrect.

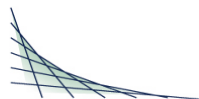
CT LAB#: 802546 Sample Description:MW-15S

DNR License/Well #: 4189/033

Sampled: 11/04/2016 1205

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Total Iron	<0.034	mg/L	0.034	0.11	1	U	11/10/2016 15:00	11/11/2016 22:59	NAH	EPA 6010C
Total Manganese	16.2	ug/L	3.4	11	1		11/10/2016 15:00	11/11/2016 22:59	NAH	EPA 6010C
Organic Results										
Acetylene	<0.23	ug/L	0.23	0.77	1	U	11/10/2016 09:00	11/14/2016 10:43	agk	Mod RSK 175
Ethane	<0.40	ug/L	0.40	1.2	1	U	11/10/2016 09:00	11/14/2016 10:43	agk	Mod RSK 175
Ethene	<0.50	ug/L	0.50	1.8	1	U	11/10/2016 09:00	11/14/2016 10:43	agk	Mod RSK 175
Methane	<0.40	ug/L	0.40	1.2	1	U	11/10/2016 09:00	11/14/2016 10:43	agk	Mod RSK 175
1,1,1,2-Tetrachloroethane	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 22:33	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.050	ug/L	0.050	0.17	1	U		11/10/2016 22:33	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.017	ug/L	0.017	0.057	1	U		11/10/2016 22:33	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.050	ug/L	0.050	0.16	1	U		11/10/2016 22:33	RLD	EPA 8260C
1,1-Dichloroethane	<0.060	ug/L	0.060	0.19	1	U		11/10/2016 22:33	RLD	EPA 8260C
1,1-Dichloroethene	<0.060	ug/L	0.060	0.20	1	U		11/10/2016 22:33	RLD	EPA 8260C
1,1-Dichloropropene	<0.060	ug/L	0.060	0.19	1	U		11/10/2016 22:33	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 22:33	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.040	ug/L	0.040	0.14	1	U		11/10/2016 22:33	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.040	ug/L	0.040	0.12	1	U		11/10/2016 22:33	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.040	ug/L	0.040	0.12	1	U		11/10/2016 22:33	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.090	ug/L	0.090	0.29	1	U		11/10/2016 22:33	RLD	EPA 8260C
1,2-Dibromoethane	<0.070	ug/L	0.070	0.23	1	U		11/10/2016 22:33	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 22:33	RLD	EPA 8260C
1,2-Dichloroethane	<0.050	ug/L	0.050	0.18	1	U		11/10/2016 22:33	RLD	EPA 8260C
1,2-Dichloropropane	<0.070	ug/L	0.070	0.23	1	U		11/10/2016 22:33	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<0.050	ug/L	0.050	0.16	1	U		11/10/2016 22:33	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 22:33	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis



CT LAB#: 802546 Sample Description:MW-15S

DNR License/Well #: 4189/033

Sampled: 11/04/2016 1205

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,3-Dichloropropane	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 22:33	RLD	EPA 8260C
1,4-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 22:33	RLD	EPA 8260C
2,2-Dichloropropane	<0.050	ug/L	0.050	0.15	1	U		11/10/2016 22:33	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.5	1	U		11/10/2016 22:33	RLD	EPA 8260C
2-Chlorotoluene	<0.030	ug/L	0.030	0.11	1	U		11/10/2016 22:33	RLD	EPA 8260C
2-Hexanone	<0.24	ug/L	0.24	0.81	1	U		11/10/2016 22:33	RLD	EPA 8260C
4-Chlorotoluene	<0.040	ug/L	0.040	0.12	1	U		11/10/2016 22:33	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.24	ug/L	0.24	0.82	1	U		11/10/2016 22:33	RLD	EPA 8260C
Acetone	<0.30	ug/L	0.30	1.0	1	U		11/10/2016 22:33	RLD	EPA 8260C
Benzene	<0.018	ug/L	0.018	0.059	1	U		11/10/2016 22:33	RLD	EPA 8260C
Bromobenzene	<0.040	ug/L	0.040	0.15	1	U		11/10/2016 22:33	RLD	EPA 8260C
Bromochloromethane	<0.030	ug/L	0.030	0.099	1	U		11/10/2016 22:33	RLD	EPA 8260C
Bromodichloromethane	<0.016	ug/L	0.016	0.054	1	U		11/10/2016 22:33	RLD	EPA 8260C
Bromoform	<0.040	ug/L	0.040	0.12	1	U		11/10/2016 22:33	RLD	EPA 8260C
Bromomethane	<0.080	ug/L	0.080	0.28	1	U Z		11/10/2016 22:33	RLD	EPA 8260C
Carbon disulfide	<0.070	ug/L	0.070	0.25	1	U		11/10/2016 22:33	RLD	EPA 8260C
Carbon tetrachloride	<0.050	ug/L	0.050	0.18	1	U		11/10/2016 22:33	RLD	EPA 8260C
Chlorobenzene	<0.040	ug/L	0.040	0.15	1	U		11/10/2016 22:33	RLD	EPA 8260C
Chloroethane	<0.070	ug/L	0.070	0.23	1	U		11/10/2016 22:33	RLD	EPA 8260C
Chloroform	<0.030	ug/L	0.030	0.11	1	U		11/10/2016 22:33	RLD	EPA 8260C
Chloromethane	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 22:33	RLD	EPA 8260C
cis-1,2-Dichloroethene	<0.070	ug/L	0.070	0.23	1	U		11/10/2016 22:33	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.011	ug/L	0.011	0.038	1	U		11/10/2016 22:33	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1	U		11/10/2016 22:33	RLD	EPA 8260C
Dibromomethane	<0.050	ug/L	0.050	0.17	1	U		11/10/2016 22:33	RLD	EPA 8260C
Dichlorodifluoromethane	<0.060	ug/L	0.060	0.19	1	U		11/10/2016 22:33	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 802546 Sample Description:MW-15S

DNR License/Well #: 4189/033

Sampled: 11/04/2016 1205

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Diisopropyl ether	<0.040	ug/L	0.040	0.14	1	U	11/10/2016 22:33	11/10/2016 22:33	RLD	EPA 8260C
Ethylbenzene	<0.040	ug/L	0.040	0.15	1	U	11/10/2016 22:33	11/10/2016 22:33	RLD	EPA 8260C
Hexachlorobutadiene	<0.050	ug/L	0.050	0.16	1	U	11/10/2016 22:33	11/10/2016 22:33	RLD	EPA 8260C
Isopropylbenzene	<0.040	ug/L	0.040	0.12	1	U	11/10/2016 22:33	11/10/2016 22:33	RLD	EPA 8260C
m & p-Xylene	<0.070	ug/L	0.070	0.23	1	U	11/10/2016 22:33	11/10/2016 22:33	RLD	EPA 8260C
Methyl tert-butyl ether	<0.040	ug/L	0.040	0.12	1	U	11/10/2016 22:33	11/10/2016 22:33	RLD	EPA 8260C
Methylene chloride	<0.050	ug/L	0.050	0.16	1	U	11/10/2016 22:33	11/10/2016 22:33	RLD	EPA 8260C
n-Butylbenzene	<0.030	ug/L	0.030	0.11	1	U	11/10/2016 22:33	11/10/2016 22:33	RLD	EPA 8260C
n-Propylbenzene	<0.040	ug/L	0.040	0.13	1	U	11/10/2016 22:33	11/10/2016 22:33	RLD	EPA 8260C
Naphthalene	<0.030	ug/L	0.030	0.10	1	U	11/10/2016 22:33	11/10/2016 22:33	RLD	EPA 8260C
o-Xylene	<0.040	ug/L	0.040	0.14	1	U	11/10/2016 22:33	11/10/2016 22:33	RLD	EPA 8260C
p-Isopropyltoluene	<0.040	ug/L	0.040	0.13	1	U	11/10/2016 22:33	11/10/2016 22:33	RLD	EPA 8260C
sec-Butylbenzene	<0.050	ug/L	0.050	0.16	1	U	11/10/2016 22:33	11/10/2016 22:33	RLD	EPA 8260C
Styrene	<0.030	ug/L	0.030	0.11	1	U	11/10/2016 22:33	11/10/2016 22:33	RLD	EPA 8260C
tert-Butylbenzene	<0.040	ug/L	0.040	0.14	1	U	11/10/2016 22:33	11/10/2016 22:33	RLD	EPA 8260C
Tetrachloroethene	<0.050	ug/L	0.050	0.18	1	U	11/10/2016 22:33	11/10/2016 22:33	RLD	EPA 8260C
Tetrahydrofuran	<0.40	ug/L	0.40	1.5	1	U	11/10/2016 22:33	11/10/2016 22:33	RLD	EPA 8260C
Toluene	<0.040	ug/L	0.040	0.13	1	U	11/10/2016 22:33	11/10/2016 22:33	RLD	EPA 8260C
trans-1,2-Dichloroethene	<0.040	ug/L	0.040	0.14	1	U	11/10/2016 22:33	11/10/2016 22:33	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.019	ug/L	0.019	0.063	1	U	11/10/2016 22:33	11/10/2016 22:33	RLD	EPA 8260C
Trichloroethene	<0.050	ug/L	0.050	0.17	1	U	11/10/2016 22:33	11/10/2016 22:33	RLD	EPA 8260C
Trichlorofluoromethane	<0.090	ug/L	0.090	0.14	1	U	11/10/2016 22:33	11/10/2016 22:33	RLD	EPA 8260C
Vinyl acetate	<0.22	ug/L	0.22	0.73	1	U	11/10/2016 22:33	11/10/2016 22:33	RLD	EPA 8260C
Vinyl chloride	<0.019	ug/L	0.019	0.064	1	U	11/10/2016 22:33	11/10/2016 22:33	RLD	EPA 8260C
1,4-Dioxane	<7.0	ug/L	7.0	23	1	U	11/10/2016 22:33	11/10/2016 22:33	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications
Kansas NELAP ID# E-10368
Kentucky ID# 0023
ISO/IEC 17025-2005 A2LA Cert # 3806.01
North Carolina ID# 674
Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID E8711111, Expires Annually
Louisiana ID # 115843
Virginia ID# 7608
Illinois NELAP ID # 002413
Wisconsin (WOSB) ID# WI-5499-WBE
Maryland ID# 344

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase:
 Project #: 117-7413001.01
 Folder #: 123492
 Purchase Order #:
 Contract #: 2747

Page 1 of 2
 Arrival Temperature: 1.5
 Report Date: 11/30/2016
 Date Received: 11/08/2016
 Reprint Date: 11/30/2016

CT LAB#: 802547	Sample Description: MW-15S	DNR License/Well #: 4189/033	Sampled: 11/04/2016 1205
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Metals Results										
Dissolved Iron	<0.059	mg/L	0.059	0.20	1	U		11/10/2016 04:38	NAH	EPA 6010C
Dissolved Manganese	<2.2	ug/L	2.2	7.3	1	U		11/10/2016 04:38	NAH	EPA 6010C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

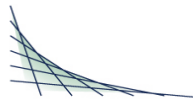
Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications
Kansas NELAP ID# E-10368
Kentucky ID# 0023
ISO/IEC 17025-2005 A2LA Cert # 3806.01
North Carolina ID# 674
Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID E8711111, Expires Annually
Louisiana ID # 115843
Virginia ID# 7608
Illinois NELAP ID # 002413
Wisconsin (WOSB) ID# WI-5499-WBE
Maryland ID# 344



ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

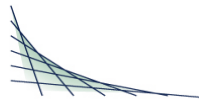
Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase:
 Project #: 117-7413001.01
 Folder #: 123492
 Purchase Order #:
 Contract #: 2747

Page 1 of 5
 Arrival Temperature: 1.5
 Report Date: 11/30/2016
 Date Received: 11/08/2016
 Reprint Date: 11/30/2016

CT LAB#: 802548	Sample Description: MW-15D	DNR License/Well #: 4189/025	Sampled: 11/04/2016 1315
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Field Results										
Dissolved Oxygen (Field)	8.71	mg/L	N/A	N/A	1			11/04/2016 00:00	BMS	
Depth to Groundwater (Field)	9.40	Feet	N/A	N/A	1			11/04/2016 00:00	BMS	
OX/REDOX (Field)	114	MV	N/A	N/A	1			11/04/2016 00:00	BMS	
Color (Field)	CLEAR		N/A	N/A	1			11/04/2016 00:00	BMS	FIELD
Conductivity (Field)	528	umhos/cm	N/A	N/A	1			11/04/2016 00:00	BMS	FIELD
Groundwater Elevation (Field)	845.90	Feet MSL	N/A	N/A	1			11/04/2016 00:00	BMS	FIELD
pH (Field)	7.43	S.U.	N/A	N/A	1			11/04/2016 00:00	BMS	FIELD
Temperature (Field)	6.43	Deg. C	N/A	N/A	1			11/04/2016 00:00	BMS	FIELD
Turbidity (Field)	CLEAR		N/A	N/A	1			11/04/2016 00:00	BMS	FIELD
Inorganic Results										
Alkalinity Total	400	mg/L	5.0	18	1			11/11/2016 11:23	SAW	EPA 310.2
Total Chloride	200	mg/L	7.0	24	10			11/10/2016 22:22	JJF	EPA 9056A
Total Sulfate	49	mg/L	1.0	3.2	1			11/10/2016 20:51	JJF	EPA 9056A
Total Organic Carbon	2.8	mg/L	0.50	1.7	1			11/17/2016 10:24	JJF	EPA 9060A
Metals Results										

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis
 The depth to groundwater and groundwater elevation results listed above are from a previous sampling round and therefore incorrect.



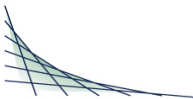
CT LAB#: 802548 Sample Description:MW-15D

DNR License/Well #: 4189/025

Sampled: 11/04/2016 1315

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Total Iron	0.0418	mg/L	0.034	0.11	1	J		11/11/2016 23:06	NAH	EPA 6010C
Total Manganese	237	ug/L	3.4	11	1			11/11/2016 23:06	NAH	EPA 6010C
Organic Results										
Acetylene	<0.23	ug/L	0.23	0.77	1	U	11/10/2016 09:00	11/14/2016 10:53	agk	Mod RSK 175
Ethane	<0.40	ug/L	0.40	1.2	1	U	11/10/2016 09:00	11/14/2016 10:53	agk	Mod RSK 175
Ethene	<0.50	ug/L	0.50	1.8	1	U	11/10/2016 09:00	11/14/2016 10:53	agk	Mod RSK 175
Methane	1.0	ug/L	0.40	1.2	1	J	11/10/2016 09:00	11/14/2016 10:53	agk	Mod RSK 175
1,1,1,2-Tetrachloroethane	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 23:02	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.050	ug/L	0.050	0.17	1	U		11/10/2016 23:02	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.017	ug/L	0.017	0.057	1	U		11/10/2016 23:02	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.050	ug/L	0.050	0.16	1	U		11/10/2016 23:02	RLD	EPA 8260C
1,1-Dichloroethane	<0.060	ug/L	0.060	0.19	1	U		11/10/2016 23:02	RLD	EPA 8260C
1,1-Dichloroethene	<0.060	ug/L	0.060	0.20	1	U		11/10/2016 23:02	RLD	EPA 8260C
1,1-Dichloropropene	<0.060	ug/L	0.060	0.19	1	U		11/10/2016 23:02	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 23:02	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.040	ug/L	0.040	0.14	1	U		11/10/2016 23:02	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.040	ug/L	0.040	0.12	1	U		11/10/2016 23:02	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.040	ug/L	0.040	0.12	1	U		11/10/2016 23:02	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.090	ug/L	0.090	0.29	1	U		11/10/2016 23:02	RLD	EPA 8260C
1,2-Dibromoethane	<0.070	ug/L	0.070	0.23	1	U		11/10/2016 23:02	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 23:02	RLD	EPA 8260C
1,2-Dichloroethane	<0.050	ug/L	0.050	0.18	1	U		11/10/2016 23:02	RLD	EPA 8260C
1,2-Dichloropropane	<0.070	ug/L	0.070	0.23	1	U		11/10/2016 23:02	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<0.050	ug/L	0.050	0.16	1	U		11/10/2016 23:02	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 23:02	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis



CT LAB#: 802548 Sample Description:MW-15D

DNR License/Well #: 4189/025

Sampled: 11/04/2016 1315

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,3-Dichloropropane	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 23:02	RLD	EPA 8260C
1,4-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 23:02	RLD	EPA 8260C
2,2-Dichloropropane	<0.050	ug/L	0.050	0.15	1	U		11/10/2016 23:02	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.5	1	U		11/10/2016 23:02	RLD	EPA 8260C
2-Chlorotoluene	<0.030	ug/L	0.030	0.11	1	U		11/10/2016 23:02	RLD	EPA 8260C
2-Hexanone	<0.24	ug/L	0.24	0.81	1	U		11/10/2016 23:02	RLD	EPA 8260C
4-Chlorotoluene	<0.040	ug/L	0.040	0.12	1	U		11/10/2016 23:02	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.24	ug/L	0.24	0.82	1	U		11/10/2016 23:02	RLD	EPA 8260C
Acetone	<0.30	ug/L	0.30	1.0	1	U		11/10/2016 23:02	RLD	EPA 8260C
Benzene	0.023	ug/L	0.018	0.059	1	J		11/10/2016 23:02	RLD	EPA 8260C
Bromobenzene	<0.040	ug/L	0.040	0.15	1	U		11/10/2016 23:02	RLD	EPA 8260C
Bromochloromethane	<0.030	ug/L	0.030	0.099	1	U		11/10/2016 23:02	RLD	EPA 8260C
Bromodichloromethane	<0.016	ug/L	0.016	0.054	1	U		11/10/2016 23:02	RLD	EPA 8260C
Bromoform	<0.040	ug/L	0.040	0.12	1	U		11/10/2016 23:02	RLD	EPA 8260C
Bromomethane	<0.080	ug/L	0.080	0.28	1	U Z		11/10/2016 23:02	RLD	EPA 8260C
Carbon disulfide	<0.070	ug/L	0.070	0.25	1	U		11/10/2016 23:02	RLD	EPA 8260C
Carbon tetrachloride	<0.050	ug/L	0.050	0.18	1	U		11/10/2016 23:02	RLD	EPA 8260C
Chlorobenzene	0.24	ug/L	0.040	0.15	1			11/10/2016 23:02	RLD	EPA 8260C
Chloroethane	<0.070	ug/L	0.070	0.23	1	U		11/10/2016 23:02	RLD	EPA 8260C
Chloroform	<0.030	ug/L	0.030	0.11	1	U		11/10/2016 23:02	RLD	EPA 8260C
Chloromethane	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 23:02	RLD	EPA 8260C
cis-1,2-Dichloroethene	2.2	ug/L	0.070	0.23	1			11/10/2016 23:02	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.011	ug/L	0.011	0.038	1	U		11/10/2016 23:02	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1	U		11/10/2016 23:02	RLD	EPA 8260C
Dibromomethane	<0.050	ug/L	0.050	0.17	1	U		11/10/2016 23:02	RLD	EPA 8260C
Dichlorodifluoromethane	<0.060	ug/L	0.060	0.19	1	U		11/10/2016 23:02	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 802548 Sample Description:MW-15D

DNR License/Well #: 4189/025

Sampled: 11/04/2016 1315

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Diisopropyl ether	<0.040	ug/L	0.040	0.14	1	U	11/10/2016 23:02	11/10/2016 23:02	RLD	EPA 8260C
Ethylbenzene	<0.040	ug/L	0.040	0.15	1	U	11/10/2016 23:02	11/10/2016 23:02	RLD	EPA 8260C
Hexachlorobutadiene	<0.050	ug/L	0.050	0.16	1	U	11/10/2016 23:02	11/10/2016 23:02	RLD	EPA 8260C
Isopropylbenzene	<0.040	ug/L	0.040	0.12	1	U	11/10/2016 23:02	11/10/2016 23:02	RLD	EPA 8260C
m & p-Xylene	<0.070	ug/L	0.070	0.23	1	U	11/10/2016 23:02	11/10/2016 23:02	RLD	EPA 8260C
Methyl tert-butyl ether	<0.040	ug/L	0.040	0.12	1	U	11/10/2016 23:02	11/10/2016 23:02	RLD	EPA 8260C
Methylene chloride	<0.050	ug/L	0.050	0.16	1	U	11/10/2016 23:02	11/10/2016 23:02	RLD	EPA 8260C
n-Butylbenzene	<0.030	ug/L	0.030	0.11	1	U	11/10/2016 23:02	11/10/2016 23:02	RLD	EPA 8260C
n-Propylbenzene	<0.040	ug/L	0.040	0.13	1	U	11/10/2016 23:02	11/10/2016 23:02	RLD	EPA 8260C
Naphthalene	<0.030	ug/L	0.030	0.10	1	U	11/10/2016 23:02	11/10/2016 23:02	RLD	EPA 8260C
o-Xylene	<0.040	ug/L	0.040	0.14	1	U	11/10/2016 23:02	11/10/2016 23:02	RLD	EPA 8260C
p-Isopropyltoluene	<0.040	ug/L	0.040	0.13	1	U	11/10/2016 23:02	11/10/2016 23:02	RLD	EPA 8260C
sec-Butylbenzene	<0.050	ug/L	0.050	0.16	1	U	11/10/2016 23:02	11/10/2016 23:02	RLD	EPA 8260C
Styrene	<0.030	ug/L	0.030	0.11	1	U	11/10/2016 23:02	11/10/2016 23:02	RLD	EPA 8260C
tert-Butylbenzene	<0.040	ug/L	0.040	0.14	1	U	11/10/2016 23:02	11/10/2016 23:02	RLD	EPA 8260C
Tetrachloroethene	<0.050	ug/L	0.050	0.18	1	U	11/10/2016 23:02	11/10/2016 23:02	RLD	EPA 8260C
Tetrahydrofuran	<0.40	ug/L	0.40	1.5	1	U	11/10/2016 23:02	11/10/2016 23:02	RLD	EPA 8260C
Toluene	<0.040	ug/L	0.040	0.13	1	U	11/10/2016 23:02	11/10/2016 23:02	RLD	EPA 8260C
trans-1,2-Dichloroethene	0.099	ug/L	0.040	0.14	1	J	11/10/2016 23:02	11/10/2016 23:02	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.019	ug/L	0.019	0.063	1	U	11/10/2016 23:02	11/10/2016 23:02	RLD	EPA 8260C
Trichloroethene	9.8	ug/L	0.050	0.17	1		11/10/2016 23:02	11/10/2016 23:02	RLD	EPA 8260C
Trichlorofluoromethane	<0.090	ug/L	0.090	0.14	1	U	11/10/2016 23:02	11/10/2016 23:02	RLD	EPA 8260C
Vinyl acetate	<0.22	ug/L	0.22	0.73	1	U	11/10/2016 23:02	11/10/2016 23:02	RLD	EPA 8260C
Vinyl chloride	<0.019	ug/L	0.019	0.064	1	U	11/10/2016 23:02	11/10/2016 23:02	RLD	EPA 8260C
1,4-Dioxane	<7.0	ug/L	7.0	23	1	U	11/10/2016 23:02	11/10/2016 23:02	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications

Kansas NELAP ID# E-10368
 Kentucky ID# 0023
 ISO/IEC 17025-2005 A2LA Cert # 3806.01
 North Carolina ID# 674
 Wisconsin (WDNR) Chemistry ID# 157066030
 Wisconsin (DATCP) Bacteriology ID# 105-289
 DoD-ELAP A2LA 3806.01
 GA EPD Stipulation ID E871111, Expires Annually
 Louisiana ID # 115843
 Virginia ID# 7608
 Illinois NELAP ID # 002413
 Wisconsin (WOSB) ID# WI-5499-WBE
 Maryland ID# 344

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase:
 Project #: 117-7413001.01
 Folder #: 123492
 Purchase Order #:
 Contract #: 2747

Page 1 of 2
 Arrival Temperature: 1.5
 Report Date: 11/30/2016
 Date Received: 11/08/2016
 Reprint Date: 11/30/2016

CT LAB#: 802549	Sample Description: MW-15D	DNR License/Well #: 4189/025	Sampled: 11/04/2016 1315
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Metals Results										
Dissolved Iron	<0.059	mg/L	0.059	0.20	1	U		11/10/2016 04:45	NAH	EPA 6010C
Dissolved Manganese	227	ug/L	2.2	7.3	1			11/10/2016 04:45	NAH	EPA 6010C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications

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ISO/IEC 17025-2005 A2LA Cert # 3806.01
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Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID E871111, Expires Annually
Louisiana ID # 115843
Virginia ID# 7608
Illinois NELAP ID # 002413
Wisconsin (WOSB) ID# WI-5499-WBE
Maryland ID# 344

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase:
 Project #: 117-7413001.01
 Folder #: 123492
 Purchase Order #:
 Contract #: 2747

Page 1 of 5
 Arrival Temperature: 1.5
 Report Date: 11/30/2016
 Date Received: 11/08/2016
 Reprint Date: 11/30/2016

CT LAB#: 802551	Sample Description: MW-16S	DNR License/Well #: 4189/026	Sampled: 11/04/2016 1445
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Field Results										
Dissolved Oxygen (Field)	0.05	mg/L	N/A	N/A	1			11/04/2016 00:00	BMS	
Depth to Groundwater (Field)	2.81	Feet	N/A	N/A	1			11/04/2016 00:00	BMS	
OX/REDOX (Field)	-123	MV	N/A	N/A	1			11/04/2016 00:00	BMS	
Color (Field)	CLEAR		N/A	N/A	1			11/04/2016 00:00	BMS	FIELD
Conductivity (Field)	2690	umhos/cm	N/A	N/A	1			11/04/2016 00:00	BMS	FIELD
Groundwater Elevation (Field)	845.09	Feet MSL	N/A	N/A	1			11/04/2016 00:00	BMS	FIELD
pH (Field)	7.07	S.U.	N/A	N/A	1			11/04/2016 00:00	BMS	FIELD
Temperature (Field)	6.32	Deg. C	N/A	N/A	1			11/04/2016 00:00	BMS	FIELD
Turbidity (Field)	CLEAR		N/A	N/A	1			11/04/2016 00:00	BMS	FIELD
Inorganic Results										
Alkalinity Total	690	mg/L	5.0	18	1			11/11/2016 11:26	SAW	EPA 310.2
Total Chloride	220	mg/L	14	48	20			11/10/2016 21:09	JJF	EPA 9056A
Total Sulfate	720	mg/L	20	64	20			11/10/2016 21:09	JJF	EPA 9056A
Total Organic Carbon	4.6	mg/L	0.50	1.7	1			11/17/2016 10:36	JJF	EPA 9060A
Metals Results										

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

The depth to groundwater and groundwater elevation results listed above are from a previous sampling round and therefore incorrect.

CT LAB#: 802551 Sample Description: MW-16S

DNR License/Well #: 4189/026

Sampled: 11/04/2016 1445

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Total Iron	5.83	mg/L	0.034	0.11	1		11/10/2016 15:00	11/11/2016 23:14	NAH	EPA 6010C
Total Manganese	66.2	ug/L	3.4	11	1		11/10/2016 15:00	11/11/2016 23:14	NAH	EPA 6010C
Organic Results										
Acetylene	<0.23	ug/L	0.23	0.77	1	U	11/10/2016 09:00	11/14/2016 11:03	agk	Mod RSK 175
Ethane	<0.40	ug/L	0.40	1.2	1	U	11/10/2016 09:00	11/14/2016 11:03	agk	Mod RSK 175
Ethene	<0.50	ug/L	0.50	1.8	1	U	11/10/2016 09:00	11/14/2016 11:03	agk	Mod RSK 175
Methane	1.7	ug/L	0.40	1.2	1		11/10/2016 09:00	11/14/2016 11:03	agk	Mod RSK 175
1,1,1,2-Tetrachloroethane	<2.0	ug/L	2.0	6.5	50	U		11/11/2016 00:29	RLD	EPA 8260C
1,1,1-Trichloroethane	<2.5	ug/L	2.5	8.5	50	U		11/11/2016 00:29	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.85	ug/L	0.85	2.9	50	U		11/11/2016 00:29	RLD	EPA 8260C
1,1,2-Trichloroethane	<2.5	ug/L	2.5	8.0	50	U		11/11/2016 00:29	RLD	EPA 8260C
1,1-Dichloroethane	<3.0	ug/L	3.0	9.5	50	U		11/11/2016 00:29	RLD	EPA 8260C
1,1-Dichloroethene	<3.0	ug/L	3.0	10	50	U		11/11/2016 00:29	RLD	EPA 8260C
1,1-Dichloropropene	<3.0	ug/L	3.0	9.5	50	U		11/11/2016 00:29	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<2.0	ug/L	2.0	6.5	50	U		11/11/2016 00:29	RLD	EPA 8260C
1,2,3-Trichloropropane	<2.0	ug/L	2.0	7.0	50	U		11/11/2016 00:29	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<2.0	ug/L	2.0	6.0	50	U		11/11/2016 00:29	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<2.0	ug/L	2.0	6.0	50	U		11/11/2016 00:29	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<4.5	ug/L	4.5	15	50	U		11/11/2016 00:29	RLD	EPA 8260C
1,2-Dibromoethane	<3.5	ug/L	3.5	12	50	U		11/11/2016 00:29	RLD	EPA 8260C
1,2-Dichlorobenzene	<2.0	ug/L	2.0	6.5	50	U		11/11/2016 00:29	RLD	EPA 8260C
1,2-Dichloroethane	2.5	ug/L	2.5	9.0	50	J		11/11/2016 00:29	RLD	EPA 8260C
1,2-Dichloropropane	<3.5	ug/L	3.5	12	50	U		11/11/2016 00:29	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<2.5	ug/L	2.5	8.0	50	U		11/11/2016 00:29	RLD	EPA 8260C
1,3-Dichlorobenzene	<2.0	ug/L	2.0	6.5	50	U		11/11/2016 00:29	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 802551 Sample Description: MW-16S

DNR License/Well #: 4189/026

Sampled: 11/04/2016 1445

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,3-Dichloropropane	<2.0	ug/L	2.0	6.5	50	U		11/11/2016 00:29	RLD	EPA 8260C
1,4-Dichlorobenzene	<2.0	ug/L	2.0	6.5	50	U		11/11/2016 00:29	RLD	EPA 8260C
2,2-Dichloropropane	<2.5	ug/L	2.5	7.5	50	U		11/11/2016 00:29	RLD	EPA 8260C
2-Butanone	<25	ug/L	25	75	50	U		11/11/2016 00:29	RLD	EPA 8260C
2-Chlorotoluene	<1.5	ug/L	1.5	5.5	50	U		11/11/2016 00:29	RLD	EPA 8260C
2-Hexanone	<12	ug/L	12	41	50	U		11/11/2016 00:29	RLD	EPA 8260C
4-Chlorotoluene	<2.0	ug/L	2.0	6.0	50	U		11/11/2016 00:29	RLD	EPA 8260C
4-Methyl-2-pentanone	<12	ug/L	12	41	50	U		11/11/2016 00:29	RLD	EPA 8260C
Acetone	<15	ug/L	15	50	50	U		11/11/2016 00:29	RLD	EPA 8260C
Benzene	<0.90	ug/L	0.90	3.0	50	U		11/11/2016 00:29	RLD	EPA 8260C
Bromobenzene	<2.0	ug/L	2.0	7.5	50	U		11/11/2016 00:29	RLD	EPA 8260C
Bromochloromethane	<1.5	ug/L	1.5	5.0	50	U		11/11/2016 00:29	RLD	EPA 8260C
Bromodichloromethane	<0.80	ug/L	0.80	2.7	50	U		11/11/2016 00:29	RLD	EPA 8260C
Bromoform	<2.0	ug/L	2.0	6.0	50	U		11/11/2016 00:29	RLD	EPA 8260C
Bromomethane	<4.0	ug/L	4.0	14	50	U Z		11/11/2016 00:29	RLD	EPA 8260C
Carbon disulfide	<3.5	ug/L	3.5	13	50	U		11/11/2016 00:29	RLD	EPA 8260C
Carbon tetrachloride	<2.5	ug/L	2.5	9.0	50	U		11/11/2016 00:29	RLD	EPA 8260C
Chlorobenzene	<2.0	ug/L	2.0	7.5	50	U		11/11/2016 00:29	RLD	EPA 8260C
Chloroethane	<3.5	ug/L	3.5	12	50	U		11/11/2016 00:29	RLD	EPA 8260C
Chloroform	<1.5	ug/L	1.5	5.5	50	U		11/11/2016 00:29	RLD	EPA 8260C
Chloromethane	<2.0	ug/L	2.0	6.5	50	U		11/11/2016 00:29	RLD	EPA 8260C
cis-1,2-Dichloroethene	730	ug/L	3.5	12	50			11/11/2016 00:29	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.55	ug/L	0.55	1.9	50	U		11/11/2016 00:29	RLD	EPA 8260C
Dibromochloromethane	<1.5	ug/L	1.5	5.0	50	U		11/11/2016 00:29	RLD	EPA 8260C
Dibromomethane	<2.5	ug/L	2.5	8.5	50	U		11/11/2016 00:29	RLD	EPA 8260C
Dichlorodifluoromethane	<3.0	ug/L	3.0	9.5	50	U		11/11/2016 00:29	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 802551 Sample Description:MW-16S

DNR License/Well #: 4189/026

Sampled: 11/04/2016 1445

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Diisopropyl ether	<2.0	ug/L	2.0	7.0	50	U		11/11/2016 00:29	RLD	EPA 8260C
Ethylbenzene	<2.0	ug/L	2.0	7.5	50	U		11/11/2016 00:29	RLD	EPA 8260C
Hexachlorobutadiene	<2.5	ug/L	2.5	8.0	50	U		11/11/2016 00:29	RLD	EPA 8260C
Isopropylbenzene	<2.0	ug/L	2.0	6.0	50	U		11/11/2016 00:29	RLD	EPA 8260C
m & p-Xylene	<3.5	ug/L	3.5	12	50	U		11/11/2016 00:29	RLD	EPA 8260C
Methyl tert-butyl ether	<2.0	ug/L	2.0	6.0	50	U		11/11/2016 00:29	RLD	EPA 8260C
Methylene chloride	<2.5	ug/L	2.5	8.0	50	U		11/11/2016 00:29	RLD	EPA 8260C
n-Butylbenzene	<1.5	ug/L	1.5	5.5	50	U		11/11/2016 00:29	RLD	EPA 8260C
n-Propylbenzene	<2.0	ug/L	2.0	6.5	50	U		11/11/2016 00:29	RLD	EPA 8260C
Naphthalene	<1.5	ug/L	1.5	5.0	50	U		11/11/2016 00:29	RLD	EPA 8260C
o-Xylene	<2.0	ug/L	2.0	7.0	50	U		11/11/2016 00:29	RLD	EPA 8260C
p-Isopropyltoluene	<2.0	ug/L	2.0	6.5	50	U		11/11/2016 00:29	RLD	EPA 8260C
sec-Butylbenzene	<2.5	ug/L	2.5	8.0	50	U		11/11/2016 00:29	RLD	EPA 8260C
Styrene	<1.5	ug/L	1.5	5.5	50	U		11/11/2016 00:29	RLD	EPA 8260C
tert-Butylbenzene	<2.0	ug/L	2.0	7.0	50	U		11/11/2016 00:29	RLD	EPA 8260C
Tetrachloroethene	<2.5	ug/L	2.5	9.0	50	U		11/11/2016 00:29	RLD	EPA 8260C
Tetrahydrofuran	29	ug/L	20	75	50	J B		11/11/2016 00:29	RLD	EPA 8260C
Toluene	<2.0	ug/L	2.0	6.5	50	U		11/11/2016 00:29	RLD	EPA 8260C
trans-1,2-Dichloroethene	34	ug/L	2.0	7.0	50			11/11/2016 00:29	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.95	ug/L	0.95	3.2	50	U		11/11/2016 00:29	RLD	EPA 8260C
Trichloroethene	<2.5	ug/L	2.5	8.5	50	U		11/11/2016 00:29	RLD	EPA 8260C
Trichlorofluoromethane	<4.5	ug/L	4.5	7.0	50	U		11/11/2016 00:29	RLD	EPA 8260C
Vinyl acetate	<11	ug/L	11	37	50	U		11/11/2016 00:29	RLD	EPA 8260C
Vinyl chloride	53	ug/L	0.95	3.2	50			11/11/2016 00:29	RLD	EPA 8260C
1,4-Dioxane	<350	ug/L	350	1200	50	U		11/11/2016 00:29	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications
Kansas NELAP ID# E-10368
Kentucky ID# 0023
ISO/IEC 17025-2005 A2LA Cert # 3806.01
North Carolina ID# 674
Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID E871111, Expires Annually
Louisiana ID # 115843
Virginia ID# 7608
Illinois NELAP ID # 002413
Wisconsin (WOSB) ID# WI-5499-WBE
Maryland ID# 344

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase:
 Project #: 117-7413001.01
 Folder #: 123492
 Purchase Order #:
 Contract #: 2747

Page 1 of 2
 Arrival Temperature: 1.5
 Report Date: 11/30/2016
 Date Received: 11/08/2016
 Reprint Date: 11/30/2016

CT LAB#: 802552	Sample Description: MW-16S	DNR License/Well #: 4189/026	Sampled: 11/04/2016 1445
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Metals Results										
Dissolved Iron	5.66	mg/L	0.059	0.20	1		11/10/2016 05:12	11/10/2016 05:12	NAH	EPA 6010C
Dissolved Manganese	61.4	ug/L	2.2	7.3	1		11/10/2016 05:12	11/10/2016 05:12	NAH	EPA 6010C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

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Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

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North Carolina ID# 674
Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID E8711111, Expires Annually
Louisiana ID # 115843
Virginia ID# 7608
Illinois NELAP ID # 002413
Wisconsin (WOSB) ID# WI-5499-WBE
Maryland ID# 344

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase:
 Project #: 117-7413001.01
 Folder #: 123492
 Purchase Order #:
 Contract #: 2747

Page 1 of 5
 Arrival Temperature: 1.5
 Report Date: 11/30/2016
 Date Received: 11/08/2016
 Reprint Date: 11/30/2016

CT LAB#: 802553 Sample Description: FILTER BLANK

DNR License/Well #: 4189/997

Sampled: 11/04/2016 1545

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Organic Results										
1,1,1,2-Tetrachloroethane	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 23:30	RLD	EPA 8260C
1,1,1-Trichloroethane	0.97	ug/L	0.050	0.17	1			11/10/2016 23:30	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.017	ug/L	0.017	0.057	1	U		11/10/2016 23:30	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.050	ug/L	0.050	0.16	1	U		11/10/2016 23:30	RLD	EPA 8260C
1,1-Dichloroethane	1.1	ug/L	0.060	0.19	1			11/10/2016 23:30	RLD	EPA 8260C
1,1-Dichloroethene	0.11	ug/L	0.060	0.20	1	J		11/10/2016 23:30	RLD	EPA 8260C
1,1-Dichloropropene	<0.060	ug/L	0.060	0.19	1	U		11/10/2016 23:30	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 23:30	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.040	ug/L	0.040	0.14	1	U		11/10/2016 23:30	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.040	ug/L	0.040	0.12	1	U		11/10/2016 23:30	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.040	ug/L	0.040	0.12	1	U		11/10/2016 23:30	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.090	ug/L	0.090	0.29	1	U		11/10/2016 23:30	RLD	EPA 8260C
1,2-Dibromoethane	<0.070	ug/L	0.070	0.23	1	U		11/10/2016 23:30	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 23:30	RLD	EPA 8260C
1,2-Dichloroethane	<0.050	ug/L	0.050	0.18	1	U		11/10/2016 23:30	RLD	EPA 8260C
1,2-Dichloropropane	<0.070	ug/L	0.070	0.23	1	U		11/10/2016 23:30	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

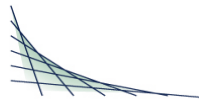
CT LAB#: 802553 Sample Description: FILTER BLANK

DNR License/Well #: 4189/997

Sampled: 11/04/2016 1545

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,3,5-Trimethylbenzene	<0.050	ug/L	0.050	0.16	1	U		11/10/2016 23:30	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 23:30	RLD	EPA 8260C
1,3-Dichloropropane	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 23:30	RLD	EPA 8260C
1,4-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 23:30	RLD	EPA 8260C
2,2-Dichloropropane	<0.050	ug/L	0.050	0.15	1	U		11/10/2016 23:30	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.5	1	U		11/10/2016 23:30	RLD	EPA 8260C
2-Chlorotoluene	<0.030	ug/L	0.030	0.11	1	U		11/10/2016 23:30	RLD	EPA 8260C
2-Hexanone	<0.24	ug/L	0.24	0.81	1	U		11/10/2016 23:30	RLD	EPA 8260C
4-Chlorotoluene	<0.040	ug/L	0.040	0.12	1	U		11/10/2016 23:30	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.24	ug/L	0.24	0.82	1	U		11/10/2016 23:30	RLD	EPA 8260C
Acetone	0.67	ug/L	0.30	1.0	1	J B		11/10/2016 23:30	RLD	EPA 8260C
Benzene	0.018	ug/L	0.018	0.059	1	J		11/10/2016 23:30	RLD	EPA 8260C
Bromobenzene	<0.040	ug/L	0.040	0.15	1	U		11/10/2016 23:30	RLD	EPA 8260C
Bromochloromethane	<0.030	ug/L	0.030	0.099	1	U		11/10/2016 23:30	RLD	EPA 8260C
Bromodichloromethane	<0.016	ug/L	0.016	0.054	1	U		11/10/2016 23:30	RLD	EPA 8260C
Bromoform	<0.040	ug/L	0.040	0.12	1	U		11/10/2016 23:30	RLD	EPA 8260C
Bromomethane	<0.080	ug/L	0.080	0.28	1	U Z		11/10/2016 23:30	RLD	EPA 8260C
Carbon disulfide	<0.070	ug/L	0.070	0.25	1	U		11/10/2016 23:30	RLD	EPA 8260C
Carbon tetrachloride	<0.050	ug/L	0.050	0.18	1	U		11/10/2016 23:30	RLD	EPA 8260C
Chlorobenzene	0.066	ug/L	0.040	0.15	1	J		11/10/2016 23:30	RLD	EPA 8260C
Chloroethane	<0.070	ug/L	0.070	0.23	1	U		11/10/2016 23:30	RLD	EPA 8260C
Chloroform	<0.030	ug/L	0.030	0.11	1	U		11/10/2016 23:30	RLD	EPA 8260C
Chloromethane	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 23:30	RLD	EPA 8260C
cis-1,2-Dichloroethene	13	ug/L	0.070	0.23	1			11/10/2016 23:30	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.011	ug/L	0.011	0.038	1	U		11/10/2016 23:30	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1	U		11/10/2016 23:30	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis



CT LAB#: 802553 Sample Description: FILTER BLANK

DNR License/Well #: 4189/997

Sampled: 11/04/2016 1545

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Dibromomethane	<0.050	ug/L	0.050	0.17	1	U		11/10/2016 23:30	RLD	EPA 8260C
Dichlorodifluoromethane	<0.060	ug/L	0.060	0.19	1	U		11/10/2016 23:30	RLD	EPA 8260C
Diisopropyl ether	<0.040	ug/L	0.040	0.14	1	U		11/10/2016 23:30	RLD	EPA 8260C
Ethylbenzene	<0.040	ug/L	0.040	0.15	1	U		11/10/2016 23:30	RLD	EPA 8260C
Hexachlorobutadiene	<0.050	ug/L	0.050	0.16	1	U		11/10/2016 23:30	RLD	EPA 8260C
Isopropylbenzene	<0.040	ug/L	0.040	0.12	1	U		11/10/2016 23:30	RLD	EPA 8260C
m & p-Xylene	<0.070	ug/L	0.070	0.23	1	U		11/10/2016 23:30	RLD	EPA 8260C
Methyl tert-butyl ether	0.076	ug/L	0.040	0.12	1	J		11/10/2016 23:30	RLD	EPA 8260C
Methylene chloride	<0.050	ug/L	0.050	0.16	1	U		11/10/2016 23:30	RLD	EPA 8260C
n-Butylbenzene	<0.030	ug/L	0.030	0.11	1	U		11/10/2016 23:30	RLD	EPA 8260C
n-Propylbenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 23:30	RLD	EPA 8260C
Naphthalene	<0.030	ug/L	0.030	0.10	1	U		11/10/2016 23:30	RLD	EPA 8260C
o-Xylene	<0.040	ug/L	0.040	0.14	1	U		11/10/2016 23:30	RLD	EPA 8260C
p-Isopropyltoluene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 23:30	RLD	EPA 8260C
sec-Butylbenzene	<0.050	ug/L	0.050	0.16	1	U		11/10/2016 23:30	RLD	EPA 8260C
Styrene	<0.030	ug/L	0.030	0.11	1	U		11/10/2016 23:30	RLD	EPA 8260C
tert-Butylbenzene	<0.040	ug/L	0.040	0.14	1	U		11/10/2016 23:30	RLD	EPA 8260C
Tetrachloroethene	0.24	ug/L	0.050	0.18	1			11/10/2016 23:30	RLD	EPA 8260C
Tetrahydrofuran	<0.40	ug/L	0.40	1.5	1	U		11/10/2016 23:30	RLD	EPA 8260C
Toluene	0.045	ug/L	0.040	0.13	1	J		11/10/2016 23:30	RLD	EPA 8260C
trans-1,2-Dichloroethene	1.1	ug/L	0.040	0.14	1			11/10/2016 23:30	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.019	ug/L	0.019	0.063	1	U		11/10/2016 23:30	RLD	EPA 8260C
Trichloroethene	14	ug/L	0.050	0.17	1			11/10/2016 23:30	RLD	EPA 8260C
Trichlorofluoromethane	<0.090	ug/L	0.090	0.14	1	U		11/10/2016 23:30	RLD	EPA 8260C
Vinyl acetate	<0.22	ug/L	0.22	0.73	1	U		11/10/2016 23:30	RLD	EPA 8260C
Vinyl chloride	0.081	ug/L	0.019	0.064	1			11/10/2016 23:30	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 802553 Sample Description: FILTER BLANK

DNR License/Well #: 4189/997

Sampled: 11/04/2016 1545

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,4-Dioxane	<7.0	ug/L	7.0	23	1	U		11/10/2016 23:30	RLD	EPA 8260C

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Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
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L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
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DoD-ELAP A2LA 3806.01
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Louisiana ID # 115843
Virginia ID# 7608
Illinois NELAP ID # 002413
Wisconsin (WOSB) ID# WI-5499-WBE
Maryland ID# 344

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase:
 Project #: 117-7413001.01
 Folder #: 123492
 Purchase Order #:
 Contract #: 2747

Page 1 of 5
 Arrival Temperature: 1.5
 Report Date: 11/30/2016
 Date Received: 11/08/2016
 Reprint Date: 11/30/2016

CT LAB#: 802554	Sample Description: TB-4	DNR License/Well #: 4189/999	Sampled: 11/04/2016
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Organic Results										
1,1,1,2-Tetrachloroethane	<0.040	ug/L	0.040	0.13	1	U	11/10/2016 21:35	11/10/2016 21:35	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.050	ug/L	0.050	0.17	1	U	11/10/2016 21:35	11/10/2016 21:35	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.017	ug/L	0.017	0.057	1	U	11/10/2016 21:35	11/10/2016 21:35	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.050	ug/L	0.050	0.16	1	U	11/10/2016 21:35	11/10/2016 21:35	RLD	EPA 8260C
1,1-Dichloroethane	<0.060	ug/L	0.060	0.19	1	U	11/10/2016 21:35	11/10/2016 21:35	RLD	EPA 8260C
1,1-Dichloroethene	<0.060	ug/L	0.060	0.20	1	U	11/10/2016 21:35	11/10/2016 21:35	RLD	EPA 8260C
1,1-Dichloropropene	<0.060	ug/L	0.060	0.19	1	U	11/10/2016 21:35	11/10/2016 21:35	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.040	ug/L	0.040	0.13	1	U	11/10/2016 21:35	11/10/2016 21:35	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.040	ug/L	0.040	0.14	1	U	11/10/2016 21:35	11/10/2016 21:35	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.040	ug/L	0.040	0.12	1	U	11/10/2016 21:35	11/10/2016 21:35	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.040	ug/L	0.040	0.12	1	U	11/10/2016 21:35	11/10/2016 21:35	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.090	ug/L	0.090	0.29	1	U	11/10/2016 21:35	11/10/2016 21:35	RLD	EPA 8260C
1,2-Dibromoethane	<0.070	ug/L	0.070	0.23	1	U	11/10/2016 21:35	11/10/2016 21:35	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U	11/10/2016 21:35	11/10/2016 21:35	RLD	EPA 8260C
1,2-Dichloroethane	<0.050	ug/L	0.050	0.18	1	U	11/10/2016 21:35	11/10/2016 21:35	RLD	EPA 8260C
1,2-Dichloropropane	<0.070	ug/L	0.070	0.23	1	U	11/10/2016 21:35	11/10/2016 21:35	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 802554 Sample Description:TB-4

DNR License/Well #: 4189/999

Sampled: 11/04/2016

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,3,5-Trimethylbenzene	<0.050	ug/L	0.050	0.16	1	U		11/10/2016 21:35	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 21:35	RLD	EPA 8260C
1,3-Dichloropropane	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 21:35	RLD	EPA 8260C
1,4-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 21:35	RLD	EPA 8260C
2,2-Dichloropropane	<0.050	ug/L	0.050	0.15	1	U		11/10/2016 21:35	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.5	1	U		11/10/2016 21:35	RLD	EPA 8260C
2-Chlorotoluene	<0.030	ug/L	0.030	0.11	1	U		11/10/2016 21:35	RLD	EPA 8260C
2-Hexanone	<0.24	ug/L	0.24	0.81	1	U		11/10/2016 21:35	RLD	EPA 8260C
4-Chlorotoluene	<0.040	ug/L	0.040	0.12	1	U		11/10/2016 21:35	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.24	ug/L	0.24	0.82	1	U		11/10/2016 21:35	RLD	EPA 8260C
Acetone	<0.30	ug/L	0.30	1.0	1	U		11/10/2016 21:35	RLD	EPA 8260C
Benzene	<0.018	ug/L	0.018	0.059	1	U		11/10/2016 21:35	RLD	EPA 8260C
Bromobenzene	<0.040	ug/L	0.040	0.15	1	U		11/10/2016 21:35	RLD	EPA 8260C
Bromochloromethane	<0.030	ug/L	0.030	0.099	1	U		11/10/2016 21:35	RLD	EPA 8260C
Bromodichloromethane	<0.016	ug/L	0.016	0.054	1	U		11/10/2016 21:35	RLD	EPA 8260C
Bromoform	<0.040	ug/L	0.040	0.12	1	U		11/10/2016 21:35	RLD	EPA 8260C
Bromomethane	<0.080	ug/L	0.080	0.28	1	U Z		11/10/2016 21:35	RLD	EPA 8260C
Carbon disulfide	<0.070	ug/L	0.070	0.25	1	U		11/10/2016 21:35	RLD	EPA 8260C
Carbon tetrachloride	<0.050	ug/L	0.050	0.18	1	U		11/10/2016 21:35	RLD	EPA 8260C
Chlorobenzene	<0.040	ug/L	0.040	0.15	1	U		11/10/2016 21:35	RLD	EPA 8260C
Chloroethane	<0.070	ug/L	0.070	0.23	1	U		11/10/2016 21:35	RLD	EPA 8260C
Chloroform	<0.030	ug/L	0.030	0.11	1	U		11/10/2016 21:35	RLD	EPA 8260C
Chloromethane	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 21:35	RLD	EPA 8260C
cis-1,2-Dichloroethene	<0.070	ug/L	0.070	0.23	1	U		11/10/2016 21:35	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.011	ug/L	0.011	0.038	1	U		11/10/2016 21:35	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1	U		11/10/2016 21:35	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 802554 Sample Description:TB-4

DNR License/Well #: 4189/999

Sampled: 11/04/2016

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Dibromomethane	<0.050	ug/L	0.050	0.17	1	U		11/10/2016 21:35	RLD	EPA 8260C
Dichlorodifluoromethane	<0.060	ug/L	0.060	0.19	1	U		11/10/2016 21:35	RLD	EPA 8260C
Diisopropyl ether	<0.040	ug/L	0.040	0.14	1	U		11/10/2016 21:35	RLD	EPA 8260C
Ethylbenzene	<0.040	ug/L	0.040	0.15	1	U		11/10/2016 21:35	RLD	EPA 8260C
Hexachlorobutadiene	<0.050	ug/L	0.050	0.16	1	U		11/10/2016 21:35	RLD	EPA 8260C
Isopropylbenzene	<0.040	ug/L	0.040	0.12	1	U		11/10/2016 21:35	RLD	EPA 8260C
m & p-Xylene	<0.070	ug/L	0.070	0.23	1	U		11/10/2016 21:35	RLD	EPA 8260C
Methyl tert-butyl ether	<0.040	ug/L	0.040	0.12	1	U		11/10/2016 21:35	RLD	EPA 8260C
Methylene chloride	<0.050	ug/L	0.050	0.16	1	U		11/10/2016 21:35	RLD	EPA 8260C
n-Butylbenzene	<0.030	ug/L	0.030	0.11	1	U		11/10/2016 21:35	RLD	EPA 8260C
n-Propylbenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 21:35	RLD	EPA 8260C
Naphthalene	<0.030	ug/L	0.030	0.10	1	U		11/10/2016 21:35	RLD	EPA 8260C
o-Xylene	<0.040	ug/L	0.040	0.14	1	U		11/10/2016 21:35	RLD	EPA 8260C
p-Isopropyltoluene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 21:35	RLD	EPA 8260C
sec-Butylbenzene	<0.050	ug/L	0.050	0.16	1	U		11/10/2016 21:35	RLD	EPA 8260C
Styrene	<0.030	ug/L	0.030	0.11	1	U		11/10/2016 21:35	RLD	EPA 8260C
tert-Butylbenzene	<0.040	ug/L	0.040	0.14	1	U		11/10/2016 21:35	RLD	EPA 8260C
Tetrachloroethene	<0.050	ug/L	0.050	0.18	1	U		11/10/2016 21:35	RLD	EPA 8260C
Tetrahydrofuran	<0.40	ug/L	0.40	1.5	1	U B		11/10/2016 21:35	RLD	EPA 8260C
Toluene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 21:35	RLD	EPA 8260C
trans-1,2-Dichloroethene	<0.040	ug/L	0.040	0.14	1	U		11/10/2016 21:35	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.019	ug/L	0.019	0.063	1	U		11/10/2016 21:35	RLD	EPA 8260C
Trichloroethene	<0.050	ug/L	0.050	0.17	1	U		11/10/2016 21:35	RLD	EPA 8260C
Trichlorofluoromethane	<0.090	ug/L	0.090	0.14	1	U		11/10/2016 21:35	RLD	EPA 8260C
Vinyl acetate	<0.22	ug/L	0.22	0.73	1	U		11/10/2016 21:35	RLD	EPA 8260C
Vinyl chloride	<0.019	ug/L	0.019	0.064	1	U		11/10/2016 21:35	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 802554 Sample Description:TB-4 DNR License/Well #: 4189/999 Sampled: 11/04/2016

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,4-Dioxane	<7.0	ug/L	7.0	23	1	U		11/10/2016 21:35	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications
Kansas NELAP ID# E-10368
Kentucky ID# 0023
ISO/IEC 17025-2005 A2LA Cert # 3806.01
North Carolina ID# 674
Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID E871111, Expires Annually
Louisiana ID # 115843
Virginia ID# 7608
Illinois NELAP ID # 002413
Wisconsin (WOSB) ID# WI-5499-WBE
Maryland ID# 344

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase:
 Project #: 117-7413001.01
 Folder #: 123492
 Purchase Order #:
 Contract #: 2747

Page 1 of 2
 Arrival Temperature: 1.5
 Report Date: 11/30/2016
 Date Received: 11/08/2016
 Reprint Date: 11/30/2016

CT LAB#: 802555 Sample Description: MW-1D Sampled: 11/04/2016 1515

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Metals Results										
Dissolved Iron	2.90	mg/L	0.059	0.20	1			11/10/2016 05:20	NAH	EPA 6010C
Dissolved Manganese	18.0	ug/L	2.2	7.3	1			11/10/2016 05:20	NAH	EPA 6010C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

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Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

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Kentucky ID# 0023
ISO/IEC 17025-2005 A2LA Cert # 3806.01
North Carolina ID# 674
Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID E8711111, Expires Annually
Louisiana ID # 115843
Virginia ID# 7608
Illinois NELAP ID # 002413
Wisconsin (WOSB) ID# WI-5499-WBE
Maryland ID# 344

QC SUMMARY REPORT

TETRA TECH

SDG #: 0

Folder #: 123492

**Project Name: OCONOMOWOC
 ELECTROPLATING
 Project Number: 117-7413001.01**

Lab Control Spike Water

Analytical Run #:	132427	Analysis Date:	11/09/2016	Prep Batch #:	Matrix:	LIQUID
CTLab #:	803665	Analysis Time:	07:50	Prep Date/Time:	Method:	SW9056A
Parent Sample #:		Analyst:	JJF	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Chloride	15.42	mg/L			15.00	103	80 --- 120		
Sulfate	25.73	mg/L			25.00	103	80 --- 120		

TETRA TECH

SDG #: 0

Folder #: 123492

Project Name: OCONOMOWOC
ELECTROPLATING
Project Number: 117-7413001.01

Method Blank Water

Analytical Run #:	132427	Analysis Date:	11/09/2016	Prep Batch #:		Matrix:	LIQUID
CTLab #:	803662	Analysis Time:	08:11	Prep Date/Time:		Method:	SW9056A
Parent Sample #:		Analyst:	JJF	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Chloride	0.7	mg/L		U	0		0.7		
Sulfate	1.0	mg/L		U	0		1.0		

TETRA TECH

SDG #: 0

Folder #: 123492

Project Name: OCONOMOWOC

ELECTROPLATING

Project Number: 117-7413001.01

Duplicate

Analytical Run #:	132588	Analysis Date:	11/10/2016	Prep Batch #:	Matrix:	GROUND WATER
CTLab #:	804440	Analysis Time:	21:28	Prep Date/Time:	Method:	SW9056A
Parent Sample #:	802551	Analyst:	JJF	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Chloride	219	mg/L	220					0	20
Total Sulfate	724	mg/L	720					1	20

TETRA TECH

SDG #: 0

Folder #: 123492

Project Name: OCONOMOWOC
ELECTROPLATING
Project Number: 117-7413001.01

Lab Control Spike Water

Analytical Run #:	132588	Analysis Date:	11/10/2016	Prep Batch #:	Matrix:	LIQUID
CTLab #:	804543	Analysis Time:	15:23	Prep Date/Time:	Method:	SW9056A
Parent Sample #:		Analyst:	JJF	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Chloride	13.85	mg/L			15.00	92	80 --- 120		
Sulfate	22.64	mg/L			25.00	91	80 --- 120		

TETRA TECH

SDG #: 0

Folder #: 123492

Project Name: OCONOMOWOC
ELECTROPLATING
Project Number: 117-7413001.01

Method Blank Water

Analytical Run #:	132588	Analysis Date:	11/10/2016	Prep Batch #:		Matrix:	LIQUID
CTLab #:	804437	Analysis Time:	15:41	Prep Date/Time:		Method:	SW9056A
Parent Sample #:		Analyst:	JJF	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Chloride	0.7	mg/L		U	0		0.7		
Sulfate	1.068	mg/L			0		1.0		

Matrix Spike Water

Analytical Run #:	132588	Analysis Date:	11/10/2016	Prep Batch #:	Matrix:	GROUND WATER
CTLab #:	804441	Analysis Time:	21:46	Prep Date/Time:	Method:	SW9056A
Parent Sample #:	802551	Analyst:	JJF	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Chloride	375	mg/L	220		160	97	80 --- 120		20
Total Sulfate	872	mg/L	720		160	95	80 --- 120		20

TETRA TECH

SDG #: 0

Folder #: 123492

Project Name: OCONOMOWOC

ELECTROPLATING

Project Number: 117-7413001.01

Lab Control Spike Water

Analytical Run #:	132601	Analysis Date:	11/11/2016	Prep Batch #:		Matrix:	LIQUID
CTLab #:	804114	Analysis Time:	11:06	Prep Date/Time:		Method:	E310.2
Parent Sample #:		Analyst:	SAW	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Alkalinity	369.0	mg/L			375.0	98	90 --- 110		

TETRA TECH

SDG #: 0

Folder #: 123492

Project Name: OCONOMOWOC
ELECTROPLATING
Project Number: 117-7413001.01

Method Blank Water

Analytical Run #:	132601	Analysis Date:	11/11/2016	Prep Batch #:	Matrix:	LIQUID
CTLab #:	804115	Analysis Time:	11:07	Prep Date/Time:	Method:	E310.2
Parent Sample #:		Analyst:	SAW	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Alkalinity	5	mg/L		U	0			5	

TETRA TECH

SDG #: 0

Folder #: 123492

Project Name: OCONOMOWOC
ELECTROPLATING
Project Number: 117-7413001.01

Duplicate

Analytical Run #:	132805	Analysis Date:	11/17/2016	Prep Batch #:	Matrix:	GROUND WATER
CTLab #:	808394	Analysis Time:	10:48	Prep Date/Time:	Method:	SW9060
Parent Sample #:	802551	Analyst:	JJF	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Organic Carbon	4.58	mg/L	4.6					0	20

TETRA TECH

SDG #: 0

Folder #: 123492

Project Name: OCONOMOWOC
ELECTROPLATING
Project Number: 117-7413001.01

Lab Control Spike Water

Analytical Run #:	132805	Analysis Date:	11/17/2016	Prep Batch #:	Matrix:	LIQUID
CTLab #:	808392	Analysis Time:	09:27	Prep Date/Time:	Method:	SW9060
Parent Sample #:		Analyst:	JJF	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Organic Carbon	52.00	mg/L			50.00	104	85 --- 111		

TETRA TECH

SDG #: 0

Folder #: 123492

Project Name: OCONOMOWOC

ELECTROPLATING

Project Number: 117-7413001.01

Method Blank Water

Analytical Run #:	132805	Analysis Date:	11/17/2016	Prep Batch #:		Matrix:	LIQUID
CTLab #:	808393	Analysis Time:	09:42	Prep Date/Time:		Method:	SW9060
Parent Sample #:		Analyst:	JJF	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Organic Carbon	0.5	mg/L		U	0		0.5		

TETRA TECH

SDG #: 0

Folder #: 123492

Project Name: OCONOMOWOC

ELECTROPLATING

Project Number: 117-7413001.01

Matrix Spike Duplicate Water

Analytical Run #:	132805	Analysis Date:	11/17/2016	Prep Batch #:	Matrix:	GROUND WATER
CTLab #:	808396	Analysis Time:	11:15	Prep Date/Time:	Method:	SW9060
Parent Sample #:	808395	Analyst:	JJF	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Organic Carbon	54.6	mg/L	4.6		50.0	100	82 --- 119	1	6

TETRA TECH

SDG #: 0

Folder #: 123492

Project Name: OCONOMOWOC

ELECTROPLATING

Project Number: 117-7413001.01

Matrix Spike Water

Analytical Run #:	132805	Analysis Date:	11/17/2016	Prep Batch #:	Matrix:	GROUND WATER
CTLab #:	808395	Analysis Time:	11:00	Prep Date/Time:	Method:	SW9060
Parent Sample #:	802551	Analyst:	JJF	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Organic Carbon	53.9	mg/L	4.6		50.0	99	82 --- 119		6

TETRA TECH

SDG #: 0

Folder #: 123492

Project Name: OCONOMOWOC
ELECTROPLATING
Project Number: 117-7413001.01

Matrix Spike Duplicate Water

Analytical Run #:	132460	Analysis Date:	11/10/2016	Prep Batch #:		Matrix:	GROUND WATER
CTLab #:	805454	Analysis Time:	05:34	Prep Date/Time:		Method:	SW6010
Parent Sample #:	805453	Analyst:	DC	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Iron	4.85	mg/L	2.90		2.00	98	72 --- 113	0	18
Manganese	764	ug/L	18.0		1000	75	67 --- 121	3	13

TETRA TECH

SDG #: 0

Folder #: 123492

Project Name: OCONOMOWOC
ELECTROPLATING
Project Number: 117-7413001.01

Matrix Spike Water

Analytical Run #:	132460	Analysis Date:	11/10/2016	Prep Batch #:		Matrix:	GROUND WATER
CTLab #:	805453	Analysis Time:	05:27	Prep Date/Time:		Method:	SW6010
Parent Sample #:	802555	Analyst:	DC	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Iron	4.83	mg/L	2.90		2.00	96	72 --- 113		18
Manganese	784	ug/L	18.0		1000	77	67 --- 121		13

TETRA TECH

SDG #: 0

Folder #: 123492

Project Name: OCONOMOWOC

ELECTROPLATING

Project Number: 117-7413001.01

Lab Control Spike Water

Analytical Run #:	132562	Analysis Date:	11/11/2016	Prep Batch #:	60082	Matrix:	LIQUID
CTLab #:	803303	Analysis Time:	20:03	Prep Date/Time:	11/10/2016 15:00	Method:	SW6010
Parent Sample #:		Analyst:	NAH	Prep Analyst:	NAH		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Iron	0.3190	mg/L			0.4000	80	80 --- 115		
Manganese	203.0	ug/L			200.0	102	86 --- 112		

TETRA TECH

SDG #: 0

Folder #: 123492

Project Name: OCONOMOWOC
ELECTROPLATING
Project Number: 117-7413001.01

Method Blank Water

Analytical Run #:	132562	Analysis Date:	11/11/2016	Prep Batch #:	60082	Matrix:	LIQUID
CTLab #:	803302	Analysis Time:	20:10	Prep Date/Time:	11/10/2016 15:00	Method:	SW6010
Parent Sample #:		Analyst:	NAH	Prep Analyst:	NAH		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Iron	0.034	mg/L		U	0		0.034		
Manganese	3.4	ug/L		U	0		3.4		

Lab Control Spike Water

Analytical Run #:	132465	Analysis Date:	11/10/2016	Prep Batch #:	Matrix:	LIQUID
CTLab #:	804160	Analysis Time:	20:08	Prep Date/Time:	Method:	SW8260C
Parent Sample #:		Analyst:	RLD	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	4.04	ug/L			4.00	101	74 --- 127		
1,1,1-Trichloroethane	3.91	ug/L			4.00	98	73 --- 132		
1,1,2,2-Tetrachloroethane	3.93	ug/L			4.00	98	67 --- 129		
1,1,2-Trichloroethane	3.94	ug/L			4.00	98	73 --- 129		
1,1-Dichloroethane	3.86	ug/L			4.00	96	73 --- 129		
1,1-Dichloroethene	3.93	ug/L			4.00	98	73 --- 132		
1,1-Dichloropropene	3.85	ug/L			4.00	96	75 --- 125		
1,2 Dichloroethane-d4	97.0	% Recovery			100	97.0	68 --- 120		
1,2,3-Trichlorobenzene	4.48	ug/L			4.00	112	72 --- 125		
1,2,3-Trichloropropane	3.32	ug/L			4.00	83	68 --- 136		
1,2,4-Trichlorobenzene	4.54	ug/L			4.00	114	67 --- 124		
1,2,4-Trimethylbenzene	4.33	ug/L			4.00	108	77 --- 123		
1,2-Dibromo-3-chloropropane	3.34	ug/L			4.00	84	56 --- 138		
1,2-Dibromoethane	4.02	ug/L			4.00	100	76 --- 127		
1,2-Dichlorobenzene	4.52	ug/L			4.00	113	82 --- 120		
1,2-Dichloroethane	3.75	ug/L			4.00	94	72 --- 134		
1,2-Dichloropropane	3.96	ug/L			4.00	99	76 --- 124		
1,3,5-Trimethylbenzene	4.38	ug/L			4.00	110	77 --- 124		
1,3-Dichlorobenzene	4.48	ug/L			4.00	112	81 --- 120		
1,3-Dichloropropane	3.71	ug/L			4.00	93	76 --- 125		
1,4-Dichlorobenzene	4.57	ug/L			4.00	114	80 --- 120		
2,2-Dichloropropane	3.88	ug/L			4.00	97	54 --- 144		
2-Butanone	36.8	ug/L			40.0	92	57 --- 144		
2-Chlorotoluene	4.41	ug/L			4.00	110	77 --- 123		
2-Hexanone	37.9	ug/L			40.0	95	61 --- 132		
4-Chlorotoluene	4.38	ug/L			4.00	110	76 --- 124		
4-Methyl-2-pentanone	35.2	ug/L			40.0	88	64 --- 135		
Acetone	33.4	ug/L			40.0	84	51 --- 152		
Benzene	3.94	ug/L			4.00	98	80 --- 122		
Bromobenzene	4.52	ug/L			4.00	113	81 --- 120		
Bromochloromethane	3.82	ug/L			4.00	96	78 --- 126		
Bromodichloromethane	3.64	ug/L			4.00	91	67 --- 132		
Bromofluorobenzene	106	% Recovery			100	106	68 --- 120		
Bromoform	3.20	ug/L			4.00	80	55 --- 132		
Bromomethane	3.04	ug/L			4.00	76	65 --- 141		
Carbon disulfide	7.62	ug/L			8.00	95	61 --- 140		
Carbon tetrachloride	4.07	ug/L			4.00	102	72 --- 133		
Chlorobenzene	4.34	ug/L			4.00	108	80 --- 122		
Chloroethane	4.41	ug/L			4.00	110	71 --- 134		
Chloroform	3.81	ug/L			4.00	95	73 --- 127		
Chloromethane	3.96	ug/L			4.00	99	72 --- 128		
cis-1,2-Dichloroethene	4.07	ug/L			4.00	102	76 --- 127		

Lab Control Spike Water

Analytical Run #:	132465	Analysis Date:	11/10/2016	Prep Batch #:	Matrix:	LIQUID
CTLab #:	804160	Analysis Time:	20:08	Prep Date/Time:	Method:	SW8260C
Parent Sample #:		Analyst:	RLD	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
cis-1,3-Dichloropropene	3.69	ug/L			4.00	92	72 --- 125		
d8-Toluene	100	% Recovery			100	100	71 --- 117		
Dibromochloromethane	3.69	ug/L			4.00	92	60 --- 131		
Dibromofluoromethane	100	% Recovery			100	100	67 --- 121		
Dibromomethane	3.82	ug/L			4.00	96	76 --- 129		
Dichlorodifluoromethane	4.18	ug/L			4.00	104	64 --- 149		
Diisopropyl ether	3.79	ug/L			4.00	95	62 --- 137		
Ethylbenzene	4.31	ug/L			4.00	108	80 --- 121		
Hexachlorobutadiene	4.36	ug/L			4.00	109	71 --- 131		
Isopropylbenzene	4.28	ug/L			4.00	107	75 --- 122		
m & p-Xylene	8.59	ug/L			8.00	107	80 --- 121		
Methyl tert-butyl ether	3.69	ug/L			4.00	92	63 --- 135		
Methylene chloride	4.26	ug/L			4.00	106	38 --- 174		
n-Butylbenzene	4.31	ug/L			4.00	108	71 --- 125		
n-Propylbenzene	4.43	ug/L			4.00	111	76 --- 122		
Naphthalene	4.08	ug/L			4.00	102	64 --- 126		
o-Xylene	4.22	ug/L			4.00	106	77 --- 120		
p-Isopropyltoluene	4.39	ug/L			4.00	110	76 --- 122		
sec-Butylbenzene	4.36	ug/L			4.00	109	75 --- 122		
Styrene	4.20	ug/L			4.00	105	76 --- 121		
tert-Butylbenzene	4.35	ug/L			4.00	109	77 --- 120		
Tetrachloroethene	3.96	ug/L			4.00	99	75 --- 127		
Tetrahydrofuran	34.3	ug/L			40.0	86	60 --- 131		
Toluene	3.88	ug/L			4.00	97	80 --- 122		
trans-1,2-Dichloroethene	3.82	ug/L			4.00	96	68 --- 136		
trans-1,3-Dichloropropene	3.51	ug/L			4.00	88	65 --- 126		
Trichloroethene	3.90	ug/L			4.00	98	78 --- 126		
Trichlorofluoromethane	4.10	ug/L			4.00	102	70 --- 145		
Vinyl acetate	37.4	ug/L			40.0	94	38 --- 152		
Vinyl chloride	4.11	ug/L			4.00	103	71 --- 135		

Method Blank Water

Analytical Run #: 132465	Analysis Date: 11/10/2016	Prep Batch #:	Matrix: LIQUID
CTLab #: 804191	Analysis Time: 21:06	Prep Date/Time:	Method: SW8260C
Parent Sample #:	Analyst: RLD	Prep Analyst:	

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	0.04	ug/L		U	0		0.04		
1,1,1-Trichloroethane	0.05	ug/L		U	0		0.05		
1,1,2,2-Tetrachloroethane	0.017	ug/L		U	0		0.017		
1,1,2-Trichloroethane	0.05	ug/L		U	0		0.05		
1,1-Dichloroethane	0.06	ug/L		U	0		0.06		
1,1-Dichloroethene	0.06	ug/L		U	0		0.06		
1,1-Dichloropropene	0.06	ug/L		U	0		0.06		
1,2 Dichloroethane-d4	100	% Recovery			100	100	68 --- 120		
1,2,3-Trichlorobenzene	0.04	ug/L		U	0		0.04		
1,2,3-Trichloropropane	0.04	ug/L		U	0		0.04		
1,2,4-Trichlorobenzene	0.04	ug/L		U	0		0.04		
1,2,4-Trimethylbenzene	0.04	ug/L		U	0		0.04		
1,2-Dibromo-3-chloropropane	0.09	ug/L		U	0		0.09		
1,2-Dibromoethane	0.07	ug/L		U	0		0.07		
1,2-Dichlorobenzene	0.04	ug/L		U	0		0.04		
1,2-Dichloroethane	0.05	ug/L		U	0		0.05		
1,2-Dichloropropane	0.07	ug/L		U	0		0.07		
1,3,5-Trimethylbenzene	0.05	ug/L		U	0		0.05		
1,3-Dichlorobenzene	0.04	ug/L		U	0		0.04		
1,3-Dichloropropane	0.04	ug/L		U	0		0.04		
1,4-Dichlorobenzene	0.04	ug/L		U	0		0.04		
2,2-Dichloropropane	0.05	ug/L		U	0		0.05		
2-Butanone	0.5	ug/L		U	0		0.5		
2-Chlorotoluene	0.03	ug/L		U	0		0.03		
2-Hexanone	0.24	ug/L		U	0		0.24		
4-Chlorotoluene	0.04	ug/L		U	0		0.04		
4-Methyl-2-pentanone	0.24	ug/L		U	0		0.24		
Acetone	0.395	ug/L			0		0.30		
Benzene	0.018	ug/L		U	0		0.018		
Bromobenzene	0.04	ug/L		U	0		0.04		
Bromochloromethane	0.030	ug/L		U	0		0.030		
Bromodichloromethane	0.016	ug/L		U	0		0.016		
Bromofluorobenzene	97.0	% Recovery			100	97.0	68 --- 120		
Bromoform	0.04	ug/L		U	0		0.04		
Bromomethane	0.08	ug/L		U	0		0.08		
Carbon disulfide	0.07	ug/L		U	0		0.07		
Carbon tetrachloride	0.05	ug/L		U	0		0.05		
Chlorobenzene	0.04	ug/L		U	0		0.04		
Chloroethane	0.07	ug/L		U	0		0.07		
Chloroform	0.03	ug/L		U	0		0.03		
Chloromethane	0.04	ug/L		U	0		0.04		
cis-1,2-Dichloroethene	0.07	ug/L		U	0		0.07		

Method Blank Water

Analytical Run #:	132465	Analysis Date:	11/10/2016	Prep Batch #:	Matrix:	LIQUID
CTLab #:	804191	Analysis Time:	21:06	Prep Date/Time:	Method:	SW8260C
Parent Sample #:		Analyst:	RLD	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
cis-1,3-Dichloropropene	0.011	ug/L		U	0		0.011		
d8-Toluene	100	% Recovery			100	100	71 --- 117		
Dibromochloromethane	0.03	ug/L		U	0		0.03		
Dibromofluoromethane	98.0	% Recovery			100	98.0	67 --- 122		
Dibromomethane	0.05	ug/L		U	0		0.05		
Dichlorodifluoromethane	0.06	ug/L		U	0		0.06		
Diisopropyl ether	0.04	ug/L		U	0		0.04		
Ethylbenzene	0.04	ug/L		U	0		0.04		
Hexachlorobutadiene	0.05	ug/L		U	0		0.05		
Isopropylbenzene	0.04	ug/L		U	0		0.04		
m & p-Xylene	0.07	ug/L		U	0		0.07		
Methyl tert-butyl ether	0.04	ug/L		U	0		0.04		
Methylene chloride	0.05	ug/L		U	0		0.05		
n-Butylbenzene	0.03	ug/L		U	0		0.03		
n-Propylbenzene	0.04	ug/L		U	0		0.04		
Naphthalene	0.03	ug/L		U	0		0.03		
o-Xylene	0.04	ug/L		U	0		0.04		
p-Isopropyltoluene	0.04	ug/L		U	0		0.04		
sec-Butylbenzene	0.05	ug/L		U	0		0.05		
Styrene	0.03	ug/L		U	0		0.03		
tert-Butylbenzene	0.04	ug/L		U	0		0.04		
Tetrachloroethene	0.05	ug/L		U	0		0.05		
Tetrahydrofuran	0.408	ug/L			0		0.4		
Toluene	0.04	ug/L		U	0		0.04		
trans-1,2-Dichloroethene	0.04	ug/L		U	0		0.04		
trans-1,3-Dichloropropene	0.019	ug/L		U	0		0.019		
Trichloroethene	0.05	ug/L		U	0		0.05		
Trichlorofluoromethane	0.09	ug/L		U	0		0.09		
Vinyl acetate	0.22	ug/L		U	0		0.22		
Vinyl chloride	0.019	ug/L		U	0		0.019		

Matrix Spike Duplicate Water

Analytical Run #:	132465	Analysis Date:	11/11/2016	Prep Batch #:	Matrix:	GROUND WATER
CTLab #:	804422	Analysis Time:	05:46	Prep Date/Time:	Method:	SW8260C
Parent Sample #:	804421	Analyst:	RLD	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	3.48	ug/L	BDL		4.00	87	71 --- 136	1	21
1,1,1-Trichloroethane	3.56	ug/L	BDL		4.00	89	77 --- 150	0	20
1,1,2,2-Tetrachloroethane	3.42	ug/L	BDL		4.00	86	68 --- 139	4	22
1,1,2-Trichloroethane	3.39	ug/L	BDL		4.00	85	70 --- 139	2	25
1,1-Dichloroethane	3.48	ug/L	BDL		4.00	87	65 --- 149	1	25
1,1-Dichloroethene	3.76	ug/L	BDL		4.00	94	56 --- 164	2	24
1,1-Dichloropropene	3.71	ug/L	BDL		4.00	93	65 --- 146	1	21
1,2-Dichloroethane-d4	98.0	% Recovery			100	98.0	65 --- 128		7
1,2,3-Trichlorobenzene	3.68	ug/L	BDL		4.00	92	62 --- 135	1	31
1,2,3-Trichloropropane	2.61	ug/L	BDL		4.00	65	66 --- 145	4	26
1,2,4-Trichlorobenzene	3.75	ug/L	BDL		4.00	94	61 --- 132	1	29
1,2,4-Trimethylbenzene	3.60	ug/L	BDL		4.00	90	1 --- 154	1	36
1,2-Dibromo-3-chloropropane	2.99	ug/L	BDL		4.00	75	49 --- 144	4	34
1,2-Dibromoethane	3.43	ug/L	BDL		4.00	86	76 --- 132	2	22
1,2-Dichlorobenzene	3.76	ug/L	BDL		4.00	94	78 --- 128	0	23
1,2-Dichloroethane	3.38	ug/L	BDL		4.00	84	70 --- 147	0	21
1,2-Dichloropropane	3.48	ug/L	BDL		4.00	87	72 --- 138	0	19
1,3,5-Trimethylbenzene	3.72	ug/L	BDL		4.00	93	1 --- 151	1	34
1,3-Dichlorobenzene	3.82	ug/L	BDL		4.00	96	78 --- 127	0	22
1,3-Dichloropropane	3.28	ug/L	BDL		4.00	82	73 --- 136	3	23
1,4-Dichlorobenzene	3.79	ug/L	BDL		4.00	95	78 --- 127	2	22
2,2-Dichloropropane	3.27	ug/L	BDL		4.00	82	50 --- 165	2	21
2-Butanone	32.5	ug/L	BDL		40.0	81	45 --- 160	1	29
2-Chlorotoluene	3.75	ug/L	BDL		4.00	94	74 --- 130	0	20
2-Hexanone	33.6	ug/L	BDL		40.0	84	55 --- 143	4	28
4-Chlorotoluene	3.71	ug/L	BDL		4.00	93	57 --- 131	2	22
4-Methyl-2-pentanone	32.6	ug/L	BDL		40.0	82	58 --- 146	2	29
Acetone	25.7	ug/L	BDL		40.0	64	27 --- 172	1	39
Benzene	3.61	ug/L	BDL		4.00	90	81 --- 134	2	17
Bromobenzene	3.69	ug/L	BDL		4.00	92	80 --- 127	1	20
Bromochloromethane	3.39	ug/L	BDL		4.00	85	73 --- 143	2	22
Bromodichloromethane	3.15	ug/L	BDL		4.00	79	64 --- 139	3	20
Bromofluorobenzene	96.0	% Recovery			100	96.0	67 --- 120		7
Bromoform	2.78	ug/L	BDL		4.00	70	49 --- 125	3	28
Bromomethane	1.90	ug/L	BDL		4.00	48	59 --- 167	5	34
Carbon disulfide	7.38	ug/L	BDL		8.00	92	12 --- 140	1	31
Carbon tetrachloride	3.74	ug/L	BDL		4.00	94	74 --- 153	0	20
Chlorobenzene	3.73	ug/L	BDL		4.00	93	82 --- 130	1	21
Chloroethane	4.50	ug/L	BDL		4.00	112	64 --- 165	4	26
Chloroform	3.41	ug/L	BDL		4.00	85	73 --- 138	0	18
Chloromethane	3.80	ug/L	BDL		4.00	95	62 --- 157	3	21
cis-1,2-Dichloroethene	3.61	ug/L	BDL		4.00	90	75 --- 152	1	21

Matrix Spike Duplicate Water

Analytical Run #:	132465	Analysis Date:	11/11/2016	Prep Batch #:	Matrix:	GROUND WATER
CTLab #:	804422	Analysis Time:	05:46	Prep Date/Time:	Method:	SW8260C
Parent Sample #:	804421	Analyst:	RLD	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
cis-1,3-Dichloropropene	3.14	ug/L	BDL		4.00	78	61 --- 129	1	21
d8-Toluene	100	% Recovery			100	100	60 --- 119		7
Dibromochloromethane	3.08	ug/L	BDL		4.00	77	56 --- 130	3	23
Dibromofluoromethane	98.0	% Recovery			100	98.0	65 --- 128		7
Dibromomethane	3.29	ug/L	BDL		4.00	82	71 --- 142	1	21
Dichlorodifluoromethane	3.97	ug/L	BDL		4.00	99	62 --- 196	6	22
Diisopropyl ether	3.47	ug/L	BDL		4.00	87	46 --- 161	0	27
Ethylbenzene	3.78	ug/L	BDL		4.00	94	52 --- 139	0	24
Hexachlorobutadiene	3.93	ug/L	BDL		4.00	98	66 --- 147	4	30
Isopropylbenzene	3.78	ug/L	BDL		4.00	94	50 --- 135	1	24
m & p-Xylene	7.51	ug/L	BDL		8.00	94	1 --- 156	0	28
Methyl tert-butyl ether	3.28	ug/L	BDL		4.00	82	46 --- 161	1	33
Methylene chloride	3.49	ug/L	BDL		4.00	87	10 --- 181	1	36
n-Butylbenzene	3.81	ug/L	BDL		4.00	95	46 --- 144	2	24
n-Propylbenzene	3.81	ug/L	BDL		4.00	95	51 --- 139	1	23
Naphthalene	3.36	ug/L	BDL		4.00	84	45 --- 135	1	31
o-Xylene	3.62	ug/L	BDL		4.00	90	11 --- 148	2	26
p-Isopropyltoluene	3.81	ug/L	BDL		4.00	95	18 --- 148	1	27
sec-Butylbenzene	3.83	ug/L	BDL		4.00	96	57 --- 138	1	23
Styrene	3.55	ug/L	BDL		4.00	89	1 --- 159	1	40
tert-Butylbenzene	3.79	ug/L	BDL		4.00	95	74 --- 132	2	22
Tetrachloroethene	3.78	ug/L	BDL		4.00	94	79 --- 144	1	21
Tetrahydrofuran	30.1	ug/L	BDL		40.0	75	51 --- 139	3	28
Toluene	3.55	ug/L	BDL		4.00	89	56 --- 141	1	19
trans-1,2-Dichloroethene	3.56	ug/L	BDL		4.00	89	53 --- 161	0	28
trans-1,3-Dichloropropene	2.93	ug/L	BDL		4.00	73	57 --- 124	2	21
Trichloroethene	3.54	ug/L	BDL		4.00	88	74 --- 138	2	19
Trichlorofluoromethane	3.74	ug/L	BDL		4.00	94	83 --- 174	0	23
Vinyl acetate	31.1	ug/L	BDL		40.0	78	0 --- 198	1	25
Vinyl chloride	3.97	ug/L	BDL		4.00	99	65 --- 168	2	21

Matrix Spike Water

Analytical Run #:	132465	Analysis Date:	11/11/2016	Prep Batch #:	Matrix:	GROUND WATER
CTLab #:	804421	Analysis Time:	05:17	Prep Date/Time:	Method:	SW8260C
Parent Sample #:	802543	Analyst:	RLD	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	3.50	ug/L	BDL		4.00	88	71 --- 136		21
1,1,1-Trichloroethane	3.58	ug/L	BDL		4.00	90	77 --- 150		20
1,1,2,2-Tetrachloroethane	3.56	ug/L	BDL		4.00	89	68 --- 139		22
1,1,2-Trichloroethane	3.45	ug/L	BDL		4.00	86	70 --- 139		25
1,1-Dichloroethane	3.52	ug/L	BDL		4.00	88	65 --- 149		25
1,1-Dichloroethene	3.69	ug/L	BDL		4.00	92	56 --- 164		24
1,1-Dichloropropene	3.74	ug/L	BDL		4.00	94	65 --- 146		21
1,2-Dichloroethane-d4	97.0	% Recovery			100	97.0	65 --- 128		7
1,2,3-Trichlorobenzene	3.71	ug/L	BDL		4.00	93	62 --- 135		31
1,2,3-Trichloropropane	2.70	ug/L	BDL		4.00	68	66 --- 145		26
1,2,4-Trichlorobenzene	3.79	ug/L	BDL		4.00	95	61 --- 132		29
1,2,4-Trimethylbenzene	3.65	ug/L	BDL		4.00	91	1 --- 154		36
1,2-Dibromo-3-chloropropane	3.11	ug/L	BDL		4.00	78	49 --- 144		34
1,2-Dibromoethane	3.51	ug/L	BDL		4.00	88	76 --- 132		22
1,2-Dichlorobenzene	3.77	ug/L	BDL		4.00	94	78 --- 128		23
1,2-Dichloroethane	3.37	ug/L	BDL		4.00	84	70 --- 147		21
1,2-Dichloropropane	3.47	ug/L	BDL		4.00	87	72 --- 138		19
1,3,5-Trimethylbenzene	3.74	ug/L	BDL		4.00	94	1 --- 151		34
1,3-Dichlorobenzene	3.83	ug/L	BDL		4.00	96	78 --- 127		22
1,3-Dichloropropane	3.37	ug/L	BDL		4.00	84	73 --- 136		23
1,4-Dichlorobenzene	3.88	ug/L	BDL		4.00	97	78 --- 127		22
2,2-Dichloropropane	3.32	ug/L	BDL		4.00	83	50 --- 165		21
2-Butanone	32.9	ug/L	BDL		40.0	82	45 --- 160		29
2-Chlorotoluene	3.76	ug/L	BDL		4.00	94	74 --- 130		20
2-Hexanone	35.0	ug/L	BDL		40.0	88	55 --- 143		28
4-Chlorotoluene	3.78	ug/L	BDL		4.00	94	57 --- 131		22
4-Methyl-2-pentanone	33.2	ug/L	BDL		40.0	83	58 --- 146		29
Acetone	25.9	ug/L	BDL		40.0	65	27 --- 172		39
Benzene	3.69	ug/L	BDL		4.00	92	81 --- 134		17
Bromobenzene	3.73	ug/L	BDL		4.00	93	80 --- 127		20
Bromochloromethane	3.47	ug/L	BDL		4.00	87	73 --- 143		22
Bromodichloromethane	3.23	ug/L	BDL		4.00	81	64 --- 139		20
Bromofluorobenzene	95.0	% Recovery			100	95.0	67 --- 120		7
Bromoform	2.86	ug/L	BDL		4.00	72	49 --- 125		28
Bromomethane	2.00	ug/L	BDL		4.00	50	59 --- 167		34
Carbon disulfide	7.29	ug/L	BDL		8.00	91	12 --- 140		31
Carbon tetrachloride	3.75	ug/L	BDL		4.00	94	74 --- 153		20
Chlorobenzene	3.70	ug/L	BDL		4.00	92	82 --- 130		21
Chloroethane	4.68	ug/L	BDL		4.00	117	64 --- 165		26
Chloroform	3.42	ug/L	BDL		4.00	86	73 --- 138		18
Chloromethane	3.69	ug/L	BDL		4.00	92	62 --- 157		21
cis-1,2-Dichloroethene	3.64	ug/L	BDL		4.00	91	75 --- 152		21

Matrix Spike Water

Analytical Run #:	132465	Analysis Date:	11/11/2016	Prep Batch #:	Matrix:	GROUND WATER
CTLab #:	804421	Analysis Time:	05:17	Prep Date/Time:	Method:	SW8260C
Parent Sample #:	802543	Analyst:	RLD	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
cis-1,3-Dichloropropene	3.17	ug/L	BDL		4.00	79	61 --- 129		21
d8-Toluene	99.0	% Recovery			100	99.0	60 --- 119		7
Dibromochloromethane	3.18	ug/L	BDL		4.00	80	56 --- 130		23
Dibromofluoromethane	99.0	% Recovery			100	99.0	65 --- 128		7
Dibromomethane	3.27	ug/L	BDL		4.00	82	71 --- 142		21
Dichlorodifluoromethane	4.20	ug/L	BDL		4.00	105	62 --- 196		22
Diisopropyl ether	3.47	ug/L	BDL		4.00	87	46 --- 161		27
Ethylbenzene	3.79	ug/L	BDL		4.00	95	52 --- 139		24
Hexachlorobutadiene	3.78	ug/L	BDL		4.00	94	66 --- 147		30
Isopropylbenzene	3.80	ug/L	BDL		4.00	95	50 --- 135		24
m & p-Xylene	7.50	ug/L	BDL		8.00	94	1 --- 156		28
Methyl tert-butyl ether	3.30	ug/L	BDL		4.00	82	46 --- 161		33
Methylene chloride	3.44	ug/L	BDL		4.00	86	10 --- 181		36
n-Butylbenzene	3.88	ug/L	BDL		4.00	97	46 --- 144		24
n-Propylbenzene	3.87	ug/L	BDL		4.00	97	51 --- 139		23
Naphthalene	3.38	ug/L	BDL		4.00	84	45 --- 135		31
o-Xylene	3.69	ug/L	BDL		4.00	92	11 --- 148		26
p-Isopropyltoluene	3.87	ug/L	BDL		4.00	97	18 --- 148		27
sec-Butylbenzene	3.86	ug/L	BDL		4.00	96	57 --- 138		23
Styrene	3.56	ug/L	BDL		4.00	89	1 --- 159		40
tert-Butylbenzene	3.88	ug/L	BDL		4.00	97	74 --- 132		22
Tetrachloroethene	3.74	ug/L	BDL		4.00	94	79 --- 144		21
Tetrahydrofuran	31.0	ug/L	BDL		40.0	78	51 --- 139		28
Toluene	3.51	ug/L	BDL		4.00	88	56 --- 141		19
trans-1,2-Dichloroethene	3.55	ug/L	BDL		4.00	89	53 --- 161		28
trans-1,3-Dichloropropene	2.99	ug/L	BDL		4.00	75	57 --- 124		21
Trichloroethene	3.60	ug/L	BDL		4.00	90	74 --- 138		19
Trichlorofluoromethane	3.76	ug/L	BDL		4.00	94	83 --- 174		23
Vinyl acetate	31.4	ug/L	BDL		40.0	78	0 --- 198		25
Vinyl chloride	3.91	ug/L	BDL		4.00	98	65 --- 168		21

TETRA TECH

SDG #: 0

Folder #: 123492

Project Name: OCONOMOWOC
ELECTROPLATING
Project Number: 117-7413001.01

Lab Control Spike Water

Analytical Run #:	132541	Analysis Date:	11/11/2016	Prep Batch #:	60108	Matrix:	LIQUID
CTLab #:	803853	Analysis Time:	14:41	Prep Date/Time:	11/10/2016 09:00	Method:	RSK175
Parent Sample #:		Analyst:	agk	Prep Analyst:	AGK		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Acetylene	2.55	ug/L			3.07	83	70 --- 130		20
Ethane	3.70	ug/L			4.78	77	70 --- 130		20
Ethene	5.37	ug/L			6.79	79	65 --- 124		20
Methane	1.92	ug/L			2.30	83	70 --- 130		20

TETRA TECH

SDG #: 0

Folder #: 123492

Project Name: OCONOMOWOC
ELECTROPLATING
Project Number: 117-7413001.01

Method Blank Water

Analytical Run #:	132541	Analysis Date:	11/11/2016	Prep Batch #:	60108	Matrix:	LIQUID
CTLab #:	803852	Analysis Time:	14:50	Prep Date/Time:	11/10/2016 09:00	Method:	RSK175
Parent Sample #:		Analyst:	agk	Prep Analyst:	AGK		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Acetylene	0.23	ug/L		U	0		0.23		
Ethane	0.4	ug/L		U	0		0.4		
Ethene	0.5	ug/L		U	0		0.5		
Methane	0.4	ug/L		U	0		0.4		

TETRA TECH

SDG #: 0

Folder #: 123492

Project Name: OCONOMOWOC
ELECTROPLATING
Project Number: 117-7413001.01

Lab Control Spike Water

Analytical Run #:	133157	Analysis Date:	11/10/2016	Prep Batch #:	Matrix:	LIQUID
CTLab #:	812415	Analysis Time:	20:08	Prep Date/Time:	Method:	SW8260C
Parent Sample #:		Analyst:	RLD	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
1,4-Dioxane	199	ug/L			200	100	70 --- 130		

TETRA TECH

SDG #: 0

Folder #: 123492

Project Name: OCONOMOWOC

ELECTROPLATING

Project Number: 117-7413001.01

Method Blank Water

Analytical Run #:	133157	Analysis Date:	11/10/2016	Prep Batch #:		Matrix:	LIQUID
CTLab #:	812420	Analysis Time:	21:06	Prep Date/Time:		Method:	SW8260C
Parent Sample #:		Analyst:	RLD	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
1,4-Dioxane	7	ug/L		U	0			7	

TETRA TECH

SDG #: 0

Folder #: 123492

Project Name: OCONOMOWOC
ELECTROPLATING
Project Number: 117-7413001.01

Matrix Spike Duplicate Water

Analytical Run #:	133157	Analysis Date:	11/11/2016	Prep Batch #:	Matrix:	GROUND WATER
CTLab #:	812430	Analysis Time:	05:46	Prep Date/Time:	Method:	SW8260C
Parent Sample #:	812427	Analyst:	RLD	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
1,4-Dioxane	210	ug/L	BDL		200	105	70 --- 130	4	20

TETRA TECH

SDG #: 0

Folder #: 123492

Project Name: OCONOMOWOC
ELECTROPLATING
Project Number: 117-7413001.01

Matrix Spike Water

Analytical Run #:	133157	Analysis Date:	11/11/2016	Prep Batch #:	Matrix:	GROUND WATER
CTLab #:	812427	Analysis Time:	05:17	Prep Date/Time:	Method:	SW8260C
Parent Sample #:	802543	Analyst:	RLD	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
1,4-Dioxane	201	ug/L	BDL		200	100	70 --- 130		20

Sample Condition Report

Folder #: 123492	Print Date / Time: 11/08/2016 12:47
Client: TETRA TECH	Received Date / Time / By: 11/08/2016 11:55 JLS
Project Name: OCONOMOWOC ELECTROPLATING	Log-In Date / Time / By: 11/08/2016 12:45 BNA
Project Phase:	Project #: 117-7413001.01 PM: BMS
Coolers: 5842	Temperature: 1.5 C On Ice: Y
Custody Seals Present : Y	COC Present?: Y Complete? Y
Seal Intact? Y	Numbers: SIGNED AND DATED
Ship Method: FEDEX EXPRESS	Tracking Number: 020177656489266
Adequate Packaging: Y	Temp Blank Enclosed? Y

Notes: THE SAMPLES WERE RECEIVED IN GOOD CONDITION ON ICE.

ONE CUSTODY SEAL WAS PRESENT AND INTACT UPON RECEIPT - DATED 11/07/16 AND SIGNED.

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
802543 MW-15B	UNPRES PL	1	/	ALK,Anions
	Total # of Containers of Type (UNPRES PL) = 1			
802543 MW-15B	VOA HCL	1	/	GAS
	VOA HCL	1	/	
	VOA HCL	1	/	
	Total # of Containers of Type (VOA HCL) = 3			
802543 MW-15B	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	
	VOA HCL	1	/	
	Total # of Containers of Type (VOA HCL) = 3			
802543 MW-15B	HNO3	1	Y /	ICP
	Total # of Containers of Type (HNO3) = 1			
802543 MW-15B	H2SO4 PL	1	Y /	TOC
	Total # of Containers of Type (H2SO4 PL) = 1			
Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
802544 MW-15B	HNO3	1	Y /	ICP
	Total # of Containers of Type (HNO3) = 1			

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
802546 MW-15S	UNPRES PL	1	/	ALK,Anions
	Total # of Containers of Type (UNPRES PL) = 1			
802546 MW-15S	VOA HCL	1	/	GAS
	VOA HCL	1	/	GAS
	VOA HCL	1	/	GAS
	Total # of Containers of Type (VOA HCL) = 3			
802546 MW-15S	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	Total # of Containers of Type (VOA HCL) = 3			
802546 MW-15S	HNO3	1	Y /	ICP
	Total # of Containers of Type (HNO3) = 1			
802546 MW-15S	H2SO4 PL	1	Y /	TOC
	Total # of Containers of Type (H2SO4 PL) = 1			

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
802547 MW-15S	HNO3	1	Y /	ICP
	Total # of Containers of Type (HNO3) = 1			

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
802548 MW-15D	UNPRES PL	1	/	ALK,Anions
	Total # of Containers of Type (UNPRES PL) = 1			
802548 MW-15D	VOA HCL	1	/	GAS
	VOA HCL	1	/	GAS
	VOA HCL	1	/	GAS
	Total # of Containers of Type (VOA HCL) = 3			
802548 MW-15D	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	Total # of Containers of Type (VOA HCL) = 3			
802548 MW-15D	HNO3	1	Y /	ICP
	Total # of Containers of Type (HNO3) = 1			

802548 MW-15D
 H2SO4 PL 1 Y /
Total # of Containers of Type (H2SO4 PL) = 1 TOC

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
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802549 MW-15D
 HNO3 1 Y /
Total # of Containers of Type (HNO3) = 1 ICP

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
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802551 MW-16S
 UNPRES PL 1 /
Total # of Containers of Type (UNPRES PL) = 1 ALK,Anions

802551 MW-16S
 VOA HCL 1 / GAS
 VOA HCL 1 / GAS
 VOA HCL 1 / GAS
Total # of Containers of Type (VOA HCL) = 3

802551 MW-16S
 VOA HCL 1 / GAS,VOC
 VOA HCL 1 / GAS,VOC
 VOA HCL 1 / GAS,VOC
Total # of Containers of Type (VOA HCL) = 3

802551 MW-16S
 HNO3 1 Y /
Total # of Containers of Type (HNO3) = 1 ICP

802551 MW-16S
 H2SO4 PL 1 Y /
Total # of Containers of Type (H2SO4 PL) = 1 TOC

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
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802552 MW-16S
 HNO3 1 Y /
Total # of Containers of Type (HNO3) = 1 ICP

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
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802553 FILTER BLANK
 VOA HCL 1 / VOC
 VOA HCL 1 / VOC
 VOA HCL 1 / VOC
Total # of Containers of Type (VOA HCL) = 3

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
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802554 TB-4

Trip Blank	1	/	VOC
Trip Blank	1	/	VOC
Total # of Containers of Type (Trip Blank) = 2			

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
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802555 MW-1D

HNO3	1	Y	/	ICP
Total # of Containers of Type (HNO3) = 1				

<u>Condition Code</u>	<u>Condition Description</u>
1	Sample Received OK

Company: Tetra Tech

Project Contact: MARK MANTHEY

Telephone: 262 702 1282

Project Name: OCONOMOWOC Electrop.

Project #: 117-7413001.01

Location: OCONOMOWOC WI

Sampled By: ANITA KOWALEWSKI

CT LABORATORIES

1230 Lange Court, Baraboo, WI 53913
608-356-2760 Fax 608-356-2766
www.ctlaboratories.com

Report To: MARK MANTHEY
EMAIL: mark.manthey@tetratech.com
Company: Tetra Tech
Address: 175 N Corporate Dr #100
Brookfield WI 53045

Folder #: 123492

Company: TETRA TECH

Project: OCONOMOWOC ELEC

Logged By: BNA PM BML

Program:
QSM RCRA SDWA NPDES
Solid Waste Other _____

PO #

Invoice To:
EMAIL:
Company:
Address:

*Party listed is responsible for payment of invoice as per CT Laboratories' terms and conditions

Client Special Instructions

field filtered = ICP dissolved*

ANALYSES REQUESTED

Filtered? Y/N	VOC SOLID ICP	RSK-175: methyl-ethyl-alk. chloride, surfact	TDC	ICP DISSOLVED*	ICP total													Total # Containers	Designated MS/MSD
Y	3	3	1	1	1													10	
Y	3	3	1	1	1													10	
Y	3	3	1	1	1													10	
Y	3	3	1	1	1													10	
N	3																	3	
N	2																	2	
																		1	

Turnaround Time
Normal RUSH*
Date Needed: _____
Rush analysis requires prior
CT Laboratories' approval
Surcharges:
24 hr 200%
2-3 days 100%
4-9 days 50%

Matrix:
GW - groundwater SW - surface water WW - wastewater DW - drinking water
S - soil/sediment SL - sludge A - air M - misc/waste

20 Collection 16		Matrix	Grab/Comp	Sample #	Sample ID Description	Fill in Spaces with Bottles per Test													CT Lab ID # Lab use only			
Date	Time																					
11-4	1215	GW	grab	1	MW-15B	Y	3	3	1	1	1									10	802543/802544	
	1205			2	MW-15S	Y	3	3	1	1	1										10	802546/802547
	1315			3	MW-15D	Y	3	3	1	1	1										10	802548/802549
	1445			4	MW-16S	Y	3	3	1	1	1										10	802551/802552
	1545			5	Filter Blank	N	3														3	802553
		DI		6	TB-4	N	2														2	802554
	1515			7	MW-1P																1	802555

Relinquished By: ANITA KOWALEWSKI
Date/Time: 11-7-16 1630

Received By: [Signature]
Date/Time: 11-8-16 1245

Received by: [Signature]
Date/Time: _____

Received for Laboratory by: [Signature]
Date/Time: 11-8-16 1245

Lab Use Only
Ice Present No
Temp 1.5 IR Gun 15
Cooler # 5842

11-8-16 1155 Jho

CT Laboratories Terms and Conditions

Where a purchaser (Client) places an order for laboratory, consulting or sampling services from CT Laboratories (CTL), CTL shall provide the ordered services pursuant to these Terms and Conditions, and the related Quotation, or as agreed in a negotiated contract. In the absence of a written agreement to the contrary, the Order constitutes an acceptance by the Client of CTL's offer to do business under these Terms and Conditions, and an agreement to be bound by these Terms and Conditions. No contrary or additional terms and conditions expressed in a Client's document shall be deemed to become a part of the contract created upon acceptance of these Terms and Conditions, unless accepted by CTL in advance of the start of the project and in writing.

1. ORDERS AND RECEIPT OF SAMPLES (Sample Acceptance Policy)

- 1.1 The Client may place the Order (i.e., specify a Scope of Work) either by submitting a purchase order to CTL in writing, by telephone (confirmed in writing) or by negotiated contract. Whichever option the Client selects for placing the Order, the Order shall not be void unless it contains sufficient specification to enable CTL to carry out the Client's requirements. It is the policy of CT Laboratories that samples not meeting the acceptance criteria, outlined in the NELAC standards and Section 5.8.3.2 of the DOD QSM, will not be accepted by the laboratory or will be qualified on the final report. All samples submitted to the laboratory must: (1) be accompanied by proper, full and complete documentation, including sample identification, location, date and time of collection, the collector's name, type of preservation (if any), type of sample, any special comments concerning the sample and any additional pertinent fields on the chain-of-custody. In the absence of any of the required information, the laboratory will attempt to contact the client to obtain the information; if unable to obtain the necessary information, the final report will be qualified. (2) be labeled appropriately with a unique sample identification written with indelible ink on water resistant labels. If the laboratory cannot determine the identity of a sample, it will be rejected and the client will be contacted for further instructions or resampling. (3) be in an appropriate sample container. If the container is inappropriate, the client will be contacted for further instructions or resampling. If analysis is possible, the final report will be qualified. CT Laboratories can provide a sampling guide containing approved containers and preservations for analytical methods requested. (4) adhere to specified holding times. If samples are received with less than 1/2 the holding time remaining for the requested test, CT Laboratories will make its best effort to analyze the samples and notify the client. If holding times are exceeded, the final report will be qualified. (5) contain adequate sample volume to perform the necessary testing. If sufficient volume is not present, the sample will be rejected and the client will be contacted for further instructions or resampling. If samples show signs of damage, contamination or inadequate preservation, the client will be notified. If analysis can be performed, the final report will be qualified. If not, the samples will be rejected and the client notified for further instructions or resampling.
- 1.2 CT Laboratories must be supplied with complete written disclosure of the known or suspected presence of any hazardous substances, as defined by applicable federal or state law. Where any samples which were not accompanied by the required disclosure, cause interruptions in the lab's ability to process work due to contamination of instruments or work areas, the Client will be responsible for the costs of clean up and recovery.
- 1.3 Prior to Sample Acceptance, the entire risk of loss or damage to samples remains with the Client. In no event will CTL have any responsibility or liability for the action or inaction of any carrier shipping or delivering any sample to or from CTL's premises. Client is responsible to assure that any sample containing any hazardous substance which is to be delivered to CTL's premises will be packaged, labeled, transported and delivered properly and in accordance with applicable laws.

2. PAYMENT TERMS

2.1 Services performed by CTL will be in accordance with prices quoted and later confirmed in writing or as stated in the Price Schedule. Invoices may be submitted to Client upon completion of any sample delivery group. Payment in advance is required for all Clients except those whose credit has been established with CTL. For Clients with approved credit, payment terms are net 30 days from the date of invoice by CTL. All overdue payments are subject to an additional interest and service charge of one and one-half percent (1.5%) (or the maximum rate permissible by law, whichever is lesser) per month or portion thereof from the due date until the date of payment. All fees are charged or billed directly to the Client. The billing of a third party will not be accepted without a statement, signed by the third party that acknowledges and accepts payment responsibility. CTL may suspend work and withhold delivery of data under this order at any time in the event Client fails to make timely payment of its invoices. Client shall be responsible for all costs and expenses of collection including reasonable attorney's fees. CTL reserves the right to refuse to proceed with work at any time based upon an unfavorable Client credit report.

3. CHANGE ORDERS, TERMINATION

- 3.1 Changes to the Scope of Work, price, or result delivery date may be initiated by CTL after Sample Acceptance due to any condition which conflicts with analytical, QA or other protocols warranted in these Terms and Conditions. CTL will not proceed with such changes until an agreement with the Client is reached on the amount of any cost, schedule change or technical change to the Scope of Work, and such agreement is documented in writing.
- 3.2 Changes to the Scope of Work, including but not limited to increasing or decreasing the work, changing test and analysis specification or acceleration in the performance of the work may be initiated by the Client after sample acceptance. Such a change will be documented in writing and may result in a change in cost and turnaround time commitment. CTL's acceptance of such changes is contingent upon technical feasibility and operational capacity.
- 3.3 Suspension or termination of all or any part of the work may be initiated by the Client. CTL will be compensated consistent with Section 2 of these Terms and Conditions. CTL will complete all work in progress and be paid in full for all work completed.

4. WARRANTIES AND LIABILITY

- 4.1 Where applicable, CTL will use analytical methodologies which are in substantial conformity with published test methods. CTL has implemented these methods in its Laboratory Quality Manuals and referenced Standard Operating Procedures and where the nature or composition of the sample requires it, CTL reserves the right to deviate from these methodologies as necessary or appropriate, based on the reasonable judgment of CTL, which deviations, if any, will be made on a basis consistent with recognized standards of the industry and/or CTL's Laboratory Quality Manuals. Client may request that CTL perform according to a mutually agreed Quality Assurance Project Plan (QAPP). In the event that samples arrive prior to agreement on a QAPP, CTL will proceed with analyses under its standard Quality Manuals then in effect, and CTL will not be responsible for any resampling or other charges if work must be repeated to comply with a subsequently finalized QAPP.
- 4.2 CTL shall start preparation and/or analysis within holding times provided that Sample Acceptance occurs within 48 hours of sampling or 1/2 of the holding time for the test, whichever is less. Where resolution of inconsistencies leading to Sample Acceptance does not occur within this period, CTL will use its best efforts to meet holding times and will proceed with the work provided that, in CTL's judgment, the chain-of-custody or detection of the Scope of Work provide sufficient guidance. Reanalysis of samples to comply with CTL's Quality Manuals will be deemed to have met holding times provided the initial analysis was performed within the applicable holding time. Where reanalysis demonstrates that sample matrix interference is the cause of failure to meet any Quality Manual requirements, the warranty will be deemed to have been met.
- 4.3 CTL warrants that it possesses and maintains all licenses and certifications which are required to perform services under these Terms and Conditions provided that such requirements are specified in writing to CTL prior to Sample Acceptance. CTL will notify the Client in writing of any decertification or revocation of any license, or notice of either, which affects work in progress.
- 4.4 The warranty obligations set forth in Sections 4.1, 4.2 and 4.3 are the sole and exclusive warranties given by CTL in connection with any services performed by CTL or any Results generated from such services, and CTL gives and makes NO OTHER REPRESENTATION OR WARRANTY OF ANY KIND, EXPRESS OR IMPLIED. No representative of CTL is authorized to give or make any other representation or warranty or modify this warranty in any way.
- 4.5 Client's sole and exclusive remedy for the breach of warranty in connection with any services performed by CTL, will be limited to repeating any services performed, contingent on the Client's providing, at the request of CTL and at the Client's expense, additional sample(s) if necessary. Any reanalysis requested by the Client generating Results consistent with the original Results will be at the Client's expense. If resampling is necessary, CTL's liability for resampling costs will be limited to actual cost or one hundred or one hundred fifty dollars (\$150) per sample, whichever is less.
- 4.6 CTL's liability for any and all causes of action arising hereunder, whether based in contract, tort, warranty, negligence or otherwise, shall be limited to the lesser amount of compensation for the services performed or \$100,000. All claims, including those for negligence, shall be deemed waived unless suit thereon is filed within one year after CTL's completion of the services. Under no circumstances, whether arising in contract, tort (including negligence), or otherwise, shall CTL be responsible for loss of use, loss of profits, or for any special, indirect, incidental or consequential damages occasioned by the services performed or by application or use of the reports prepared.
- 4.7 In no event shall CTL have any responsibility or liability to the Client for any failure or delay in performance by CTL which results, directly or indirectly, in whole or in part, from any cause or circumstance beyond the reasonable control of CTL. Such causes and circumstances shall include, but not be limited to, acts of God, acts of Client, acts or orders of any governmental authority, strikes or other labor disputes, natural disasters, accidents, wars, civil disturbances, equipment breakdown, matrix interference or unknown highly contaminated samples that impact instrument operation, unavailability of supplies from actual suppliers, difficulties or delays in transportation, mail or delivery services, or any other cause beyond CTL's reasonable control.

5. RESULTS, WORK PRODUCT

- 5.1 Data or information provided to CTL or generated by services performed under this agreement shall only become the property of the Client upon receipt of fee by CTL of payment for the whole Order. Ownership of any analytical method, QA/QC protocols, software programs or equipment developed by CTL for performance of work will be retained by CTL, and Client shall not disclose such information to any third party.
- 5.2 Data and sample materials provided by Client or at Client's request, and the result obtained by CTL shall be held in confidence (unless such information is generally available to the public or is in the public domain or Client has failed to pay CTL for all services rendered or is otherwise in breach of these Terms and Conditions), subject to any disclosure required by law or legal process.
- 5.3 Should the Results delivered by CTL be used by the Client or Client's client, even though subsequently determined not to meet the warranties described in these Terms and Conditions, then the compensation will be adjusted based upon mutual agreement. In no case shall the Client unreasonably withhold CTL's right to independently defend its data.
- 5.4 CTL reserves the right to subcontract services ordered by the Client to another laboratory or laboratories, if, in CTL's sole judgment, it is reasonably necessary, appropriate or advisable to do so, and with the Client's permission. CTL will in no way be liable for any subcontracted services and all applicable warranties, guarantees and insurance are those of the subcontracted laboratory.
- 5.5 CTL shall dispose of the Client's samples 30 days after the analytical report is issued, unless instructed to store them for an alternate period of time or to return such samples to the Client, in a manner consistent with U.S. Environmental Protection Agency regulations or other applicable Federal, state or local requirements. Any samples for projects that are canceled or not accepted, or for which return was requested, will be returned to the Client at their own expense. CTL reserves the right to return to the Client any sample or unused portion of a sample that is not within CTL's permitted capability or the capabilities of CTL's designated waste disposal vendor(s).
- 5.6 Unless a different time period is agreed to in any order under these Terms and Conditions, CTL agrees to retain all records for five (5) years.
- 5.7 In the event that CTL is required to respond to legal process related to services for Client, Client agrees to reimburse CTL for hourly charges for personnel involved in the response and attorney fees reasonably incurred in obtaining advice concerning the response, preparation to testify, and appearances related to the legal process, travel and all reasonable expenses associated with the litigation.

6. INSURANCE

6.1 CTL shall maintain in force during the performance of services under these Terms and Conditions, Workers' Compensation and Employer's Liability Insurance in accordance with the laws of the states having jurisdiction over CTL's employees who are engaged in the performance of the work. CTL shall also maintain during such period, Comprehensive General and Contractual Liability (limit of \$2,000,000 per occurrence/aggregate), Comprehensive Automobile Liability, owned and hired, (\$1,000,000 combined single limit), and Professional/Pollution Liability Insurance (limit of \$5,000,000 per occurrence/aggregate). Any Client required changes to these limits or conditions may result in a change in cost to the Client.

7. AUDIT

7.1 Upon prior notice to CTL, the Client may audit and inspect CTL's records and accounts covering reimbursable costs related to work done for the Client, for a period of one (1) year after completion of the work. The purpose of any such audit shall be only for verification of such costs, and CTL shall not be required to provide access to cost records where prices are expressed as fixed fees or published unit prices.

ORIGIN ID: RRLA (262) 792-1282
ASHLEY KOWALEWSKI
TETRA TECH
175 N CORPORATE DRIVE
STE. 100
BROOKFIELD, WI 53045
UNITED STATES US

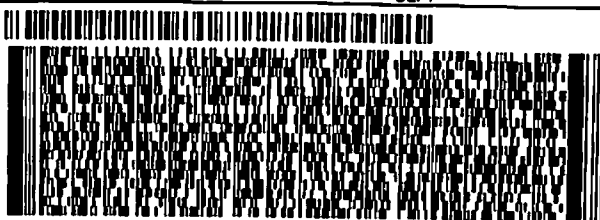
SHIP DATE: 07NOV16
ACTWGT: 34.00 LB
CAD: 1104355/NET3790
DIMS: 26x14x15 IN
BILL SENDER

TO **BRETT SZYMANSKI**
CT LABORATORIES
1230 LANGE COURT

544.L3C881/148B

BARABOO WI 53913

(808) 356-2766 REF 117-7413001 01
INV PO DEPT

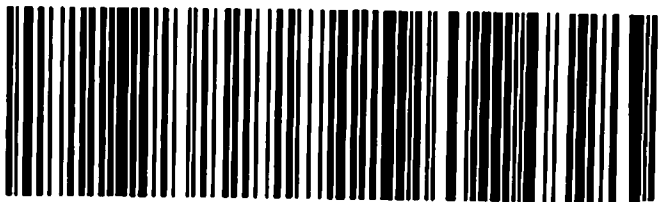


TUE - 08 NOV 10:30A
PRIORITY OVERNIGHT

TRK# 0201 7776 5648 9266

55 MSNA

DSR
53913
WI-US MSN



C006, 5842
11/9/16 1155 jlb
1.5" area
in 15

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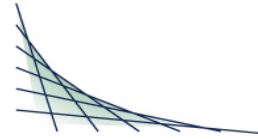
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DATE: 11-7-16
1230 Lange Court - Baraboo, WI 53913
808-356-2760
CT Laboratories LLC
contact:

Official Sample Custody Seal

DO NOT BREAK OR OPEN



ANALYTICAL REPORT

This report at a minimum contains the following information:

- Analytical Report of Test Results
- Description of QC Qualifiers
- Chain of Custody (copy)
- Quality Control Summary
- Case Narrative (if applicable)
- Correspondence with Client (if applicable)

This report has been specifically prepared to satisfy project or program requirements. These results are in compliance with NELAC requirements for parameters where accreditation is required or available, unless otherwise noted in the case narrative.



ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase: OCONOMOWOC, WI
 Project #: 117-7413001.01
 Folder #: 127236
 Purchase Order #:
 Contract #: 2747

Page 1 of 5
 Arrival Temperature: 3.4
 Report Date: 05/26/2017
 Date Received: 05/10/2017
 Reprint Date: 05/26/2017

CT LAB#: 865576	Sample Description: MW-103S	DNR License/Well #: 4189/039	Sampled: 05/09/2017 1025
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Field Results										
Dissolved Oxygen (Field)	2.10	mg/L	N/A	N/A	1			05/24/2017 00:00	BMS	
OX/REDOX (Field)	132	MV	N/A	N/A	1			05/24/2017 00:00	BMS	
Color (Field)	CLEAR		N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Conductivity (Field)	1080	umhos/cm	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Groundwater Elevation (Field)	846.23	Feet MSL	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
pH (Field)	7.22	S.U.	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Temperature (Field)	8.30	Deg. C	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Turbidity (Field)	NO		N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Inorganic Results										
Alkalinity Total	520	mg/L	10	34	1			05/22/2017 10:54	SAW	EPA 310.2
Total Chloride	31	mg/L	0.70	2.4	1			05/12/2017 00:29	AGK	EPA 9056A
Total Sulfate	67	mg/L	1.0	3.2	1	M		05/12/2017 00:29	AGK	EPA 9056A
Total Organic Carbon	8.5	mg/L	0.50	1.7	1			05/17/2017 20:04	AGK	EPA 9060A
Metals Results										
Total Iron	0.0721	mg/L	0.034	0.11	1	J	05/11/2017 15:00	05/12/2017 18:54	NAH	EPA 6010C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

The groundwater elevation listed above is from the May 2016 sampling round and therefore incorrect for this round.

CT LAB#: 865576 Sample Description: MW-103S

DNR License/Well #: 4189/039

Sampled: 05/09/2017 1025

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Total Manganese	423	ug/L	3.4	11	1		05/11/2017 15:00	05/12/2017 18:54	NAH	EPA 6010C
Organic Results										
Acetylene	<0.23	ug/L	0.23	0.77	1	U M	05/18/2017 10:45	05/22/2017 13:41	AGK	Mod RSK 175
Ethane	<0.40	ug/L	0.40	1.2	1	U M	05/18/2017 10:45	05/22/2017 13:41	AGK	Mod RSK 175
Ethene	<0.50	ug/L	0.50	1.8	1	U M	05/18/2017 10:45	05/22/2017 13:41	AGK	Mod RSK 175
Methane	5.2	ug/L	0.40	1.2	1		05/18/2017 10:45	05/22/2017 13:41	AGK	Mod RSK 175
1,1,1,2-Tetrachloroethane	<0.80	ug/L	0.80	2.6	20	U		05/17/2017 19:44	RLD	EPA 8260C
1,1,1-Trichloroethane	58	ug/L	1.0	3.4	20			05/17/2017 19:44	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.34	ug/L	0.34	1.1	20	U		05/17/2017 19:44	RLD	EPA 8260C
1,1,2-Trichloroethane	<1.0	ug/L	1.0	3.2	20	U		05/17/2017 19:44	RLD	EPA 8260C
1,1-Dichloroethane	11	ug/L	1.2	3.8	20			05/17/2017 19:44	RLD	EPA 8260C
1,1-Dichloroethene	6.4	ug/L	1.2	4.0	20			05/17/2017 19:44	RLD	EPA 8260C
1,1-Dichloropropene	<1.2	ug/L	1.2	3.8	20	U		05/17/2017 19:44	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.80	ug/L	0.80	2.6	20	U		05/17/2017 19:44	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.80	ug/L	0.80	2.8	20	U		05/17/2017 19:44	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.80	ug/L	0.80	2.4	20	U		05/17/2017 19:44	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.80	ug/L	0.80	2.4	20	U		05/17/2017 19:44	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<1.8	ug/L	1.8	5.8	20	U		05/17/2017 19:44	RLD	EPA 8260C
1,2-Dibromoethane	<1.4	ug/L	1.4	4.6	20	U		05/17/2017 19:44	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.80	ug/L	0.80	2.6	20	U		05/17/2017 19:44	RLD	EPA 8260C
1,2-Dichloroethane	<1.0	ug/L	1.0	3.6	20	U		05/17/2017 19:44	RLD	EPA 8260C
1,2-Dichloropropane	<1.4	ug/L	1.4	4.6	20	U		05/17/2017 19:44	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<1.0	ug/L	1.0	3.2	20	U		05/17/2017 19:44	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.80	ug/L	0.80	2.6	20	U		05/17/2017 19:44	RLD	EPA 8260C
1,3-Dichloropropane	<0.80	ug/L	0.80	2.6	20	U		05/17/2017 19:44	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 865576 Sample Description:MW-103S

DNR License/Well #: 4189/039

Sampled: 05/09/2017 1025

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,4-Dichlorobenzene	<0.80	ug/L	0.80	2.6	20	U		05/17/2017 19:44	RLD	EPA 8260C
1,4-Dioxane	<140	ug/L	140	460	20	U		05/17/2017 19:44	RLD	EPA 8260C
2,2-Dichloropropane	<1.0	ug/L	1.0	3.0	20	U		05/17/2017 19:44	RLD	EPA 8260C
2-Butanone	<10	ug/L	10	30	20	U		05/17/2017 19:44	RLD	EPA 8260C
2-Chlorotoluene	<0.60	ug/L	0.60	2.2	20	U		05/17/2017 19:44	RLD	EPA 8260C
2-Hexanone	<4.8	ug/L	4.8	16	20	U		05/17/2017 19:44	RLD	EPA 8260C
4-Chlorotoluene	<0.80	ug/L	0.80	2.4	20	U		05/17/2017 19:44	RLD	EPA 8260C
4-Methyl-2-pentanone	<4.8	ug/L	4.8	16	20	U		05/17/2017 19:44	RLD	EPA 8260C
Acetone	19	ug/L	6.0	20	20	J B		05/17/2017 19:44	RLD	EPA 8260C
Benzene	0.55	ug/L	0.36	1.2	20	J		05/17/2017 19:44	RLD	EPA 8260C
Bromobenzene	<0.80	ug/L	0.80	3.0	20	U		05/17/2017 19:44	RLD	EPA 8260C
Bromochloromethane	<0.60	ug/L	0.60	2.0	20	U		05/17/2017 19:44	RLD	EPA 8260C
Bromodichloromethane	<0.32	ug/L	0.32	1.1	20	U		05/17/2017 19:44	RLD	EPA 8260C
Bromoform	<0.80	ug/L	0.80	2.4	20	U		05/17/2017 19:44	RLD	EPA 8260C
Bromomethane	<1.6	ug/L	1.6	5.6	20	U Z		05/17/2017 19:44	RLD	EPA 8260C
Carbon disulfide	<1.4	ug/L	1.4	5.0	20	U		05/17/2017 19:44	RLD	EPA 8260C
Carbon tetrachloride	<1.0	ug/L	1.0	3.6	20	U		05/17/2017 19:44	RLD	EPA 8260C
Chlorobenzene	<0.80	ug/L	0.80	3.0	20	U		05/17/2017 19:44	RLD	EPA 8260C
Chloroethane	<1.4	ug/L	1.4	4.6	20	U		05/17/2017 19:44	RLD	EPA 8260C
Chloroform	<0.60	ug/L	0.60	2.2	20	U		05/17/2017 19:44	RLD	EPA 8260C
Chloromethane	<0.80	ug/L	0.80	2.6	20	U		05/17/2017 19:44	RLD	EPA 8260C
cis-1,2-Dichloroethene	24	ug/L	1.4	4.6	20			05/17/2017 19:44	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.22	ug/L	0.22	0.76	20	U		05/17/2017 19:44	RLD	EPA 8260C
Dibromochloromethane	<0.60	ug/L	0.60	2.0	20	U		05/17/2017 19:44	RLD	EPA 8260C
Dibromomethane	<1.0	ug/L	1.0	3.4	20	U		05/17/2017 19:44	RLD	EPA 8260C
Dichlorodifluoromethane	<1.2	ug/L	1.2	3.8	20	U		05/17/2017 19:44	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 865576 Sample Description: MW-103S

DNR License/Well #: 4189/039

Sampled: 05/09/2017 1025

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Diisopropyl ether	<0.80	ug/L	0.80	2.8	20	U		05/17/2017 19:44	RLD	EPA 8260C
Ethylbenzene	<0.80	ug/L	0.80	3.0	20	U		05/17/2017 19:44	RLD	EPA 8260C
Hexachlorobutadiene	<1.0	ug/L	1.0	3.2	20	U		05/17/2017 19:44	RLD	EPA 8260C
Isopropylbenzene	<0.80	ug/L	0.80	2.4	20	U		05/17/2017 19:44	RLD	EPA 8260C
m & p-Xylene	<1.4	ug/L	1.4	4.6	20	U		05/17/2017 19:44	RLD	EPA 8260C
Methyl tert-butyl ether	<0.80	ug/L	0.80	2.4	20	U		05/17/2017 19:44	RLD	EPA 8260C
Methylene chloride	6.0	ug/L	1.0	3.2	20	B		05/17/2017 19:44	RLD	EPA 8260C
n-Butylbenzene	<0.60	ug/L	0.60	2.2	20	U		05/17/2017 19:44	RLD	EPA 8260C
n-Propylbenzene	<0.80	ug/L	0.80	2.6	20	U		05/17/2017 19:44	RLD	EPA 8260C
Naphthalene	<0.60	ug/L	0.60	2.0	20	U		05/17/2017 19:44	RLD	EPA 8260C
o-Xylene	<0.80	ug/L	0.80	2.8	20	U		05/17/2017 19:44	RLD	EPA 8260C
p-Isopropyltoluene	<0.80	ug/L	0.80	2.6	20	U		05/17/2017 19:44	RLD	EPA 8260C
sec-Butylbenzene	<1.0	ug/L	1.0	3.2	20	U		05/17/2017 19:44	RLD	EPA 8260C
Styrene	<0.60	ug/L	0.60	2.2	20	U		05/17/2017 19:44	RLD	EPA 8260C
tert-Butylbenzene	<0.80	ug/L	0.80	2.8	20	U		05/17/2017 19:44	RLD	EPA 8260C
Tetrachloroethene	25	ug/L	1.0	3.6	20			05/17/2017 19:44	RLD	EPA 8260C
Tetrahydrofuran	13	ug/L	8.0	30	20	J B		05/17/2017 19:44	RLD	EPA 8260C
Toluene	<0.80	ug/L	0.80	2.6	20	U		05/17/2017 19:44	RLD	EPA 8260C
trans-1,2-Dichloroethene	1.1	ug/L	0.80	2.8	20	J		05/17/2017 19:44	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.38	ug/L	0.38	1.3	20	U		05/17/2017 19:44	RLD	EPA 8260C
Trichloroethene	170	ug/L	1.0	3.4	20			05/17/2017 19:44	RLD	EPA 8260C
Trichlorofluoromethane	<1.8	ug/L	1.8	2.8	20	U		05/17/2017 19:44	RLD	EPA 8260C
Vinyl acetate	<4.4	ug/L	4.4	15	20	U		05/17/2017 19:44	RLD	EPA 8260C
Vinyl chloride	0.85	ug/L	0.38	1.3	20	J		05/17/2017 19:44	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications

Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
Louisiana NELAP (primary) ID# ACC20160002
Illinois NELAP Lab ID# 200073
Kansas NELAP Lab ID# E-10368
Virginia NELAP Lab ID# 460203
Maryland Lab ID# WI00061
ISO/IEC 17025-2005 A2LA Cert # 3806.01
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID ACC20160002
Pennsylvania NELAP Lab ID# 68-04201, # 008

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase: OCONOMOWOC, WI
 Project #: 117-7413001.01
 Folder #: 127236
 Purchase Order #:
 Contract #: 2747

Page 1 of 2
 Arrival Temperature: 3.4
 Report Date: 05/26/2017
 Date Received: 05/10/2017
 Reprint Date: 05/26/2017

CT LAB#: 865577	Sample Description: MW-103S	DNR License/Well #: 4189/039	Sampled: 05/09/2017 1025
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Metals Results										
Dissolved Iron	<0.059	mg/L	0.059	0.20	1	U		05/10/2017 22:49	NAH	EPA 6010C
Dissolved Manganese	547	ug/L	2.2	7.3	1	M		05/10/2017 22:49	NAH	EPA 6010C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications

Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
Louisiana NELAP (primary) ID# ACC20160002
Illinois NELAP Lab ID# 200073
Kansas NELAP Lab ID# E-10368
Virginia NELAP Lab ID# 460203
Maryland Lab ID# WI00061
ISO/IEC 17025-2005 A2LA Cert # 3806.01
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID ACC20160002
Pennsylvania NELAP Lab ID# 68-04201, # 008

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase: OCONOMOWOC, WI
 Project #: 117-7413001.01
 Folder #: 127236
 Purchase Order #:
 Contract #: 2747

Page 1 of 6
 Arrival Temperature: 3.4
 Report Date: 05/26/2017
 Date Received: 05/10/2017
 Reprint Date: 05/26/2017

CT LAB#: 865578 Sample Description: MW-103D

DNR License/Well #: 4189/040

Sampled: 05/09/2017 1100

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Field Results										
Dissolved Oxygen (Field)	0.60	mg/L	N/A	N/A	1			05/24/2017 00:00	BMS	
OX/REDOX (Field)	137	MV	N/A	N/A	1			05/24/2017 00:00	BMS	
Color (Field)	CLEAR		N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Conductivity (Field)	1460	umhos/cm	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Groundwater Elevation (Field)	846.32	Feet MSL	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
pH (Field)	7.24	S.U.	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Temperature (Field)	8.96	Deg. C	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Turbidity (Field)	NO		N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Inorganic Results										
Alkalinity Total	450	mg/L	10	34	1			05/22/2017 10:55	SAW	EPA 310.2
Total Chloride	170	mg/L	3.5	12	5			05/12/2017 01:52	AGK	EPA 9056A
Total Sulfate	71	mg/L	1.0	3.2	1			05/12/2017 01:31	AGK	EPA 9056A
Total Organic Carbon	5.5	mg/L	0.50	1.7	1			05/17/2017 20:17	AGK	EPA 9060A
Metals Results										
Total Iron	0.0699	mg/L	0.034	0.11	1	J	05/11/2017 15:00	05/12/2017 19:40	NAH	EPA 6010C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

The groundwater elevation listed above is from the May 2016 sampling round and therefore incorrect for this round.

CT LAB#: 865578 Sample Description: MW-103D

DNR License/Well #: 4189/040

Sampled: 05/09/2017 1100

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Total Manganese	358	ug/L	3.4	11	1		05/11/2017 15:00	05/12/2017 19:40	NAH	EPA 6010C
Organic Results										
Acetylene	<0.23	ug/L	0.23	0.77	1	U	05/18/2017 10:45	05/22/2017 13:32	AGK	Mod RSK 175
Ethane	<0.40	ug/L	0.40	1.2	1	U	05/18/2017 10:45	05/22/2017 13:32	AGK	Mod RSK 175
Ethene	<0.50	ug/L	0.50	1.8	1	U	05/18/2017 10:45	05/22/2017 13:32	AGK	Mod RSK 175
Methane	<0.40	ug/L	0.40	1.2	1	U	05/18/2017 10:45	05/22/2017 13:32	AGK	Mod RSK 175
Volatile Organic Compounds 8260 Comments: Suspected methylene chloride laboratory contamination.										
1,1,1,2-Tetrachloroethane	<2.0	ug/L	2.0	6.5	50	U		05/17/2017 00:00	RLD	EPA 8260C
1,1,1-Trichloroethane	36	ug/L	2.5	8.5	50			05/17/2017 00:00	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.85	ug/L	0.85	2.9	50	U		05/17/2017 00:00	RLD	EPA 8260C
1,1,2-Trichloroethane	<2.5	ug/L	2.5	8.0	50	U		05/17/2017 00:00	RLD	EPA 8260C
1,1-Dichloroethane	6.7	ug/L	3.0	9.5	50	J		05/17/2017 00:00	RLD	EPA 8260C
1,1-Dichloroethene	<3.0	ug/L	3.0	10	50	U		05/17/2017 00:00	RLD	EPA 8260C
1,1-Dichloropropene	<3.0	ug/L	3.0	9.5	50	U		05/17/2017 00:00	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<2.0	ug/L	2.0	6.5	50	U		05/17/2017 00:00	RLD	EPA 8260C
1,2,3-Trichloropropane	<2.0	ug/L	2.0	7.0	50	U		05/17/2017 00:00	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<2.0	ug/L	2.0	6.0	50	U		05/17/2017 00:00	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<2.0	ug/L	2.0	6.0	50	U		05/17/2017 00:00	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<4.5	ug/L	4.5	15	50	U		05/17/2017 00:00	RLD	EPA 8260C
1,2-Dibromoethane	<3.5	ug/L	3.5	12	50	U		05/17/2017 00:00	RLD	EPA 8260C
1,2-Dichlorobenzene	<2.0	ug/L	2.0	6.5	50	U		05/17/2017 00:00	RLD	EPA 8260C
1,2-Dichloroethane	<2.5	ug/L	2.5	9.0	50	U		05/17/2017 00:00	RLD	EPA 8260C
1,2-Dichloropropane	<3.5	ug/L	3.5	12	50	U		05/17/2017 00:00	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<2.5	ug/L	2.5	8.0	50	U		05/17/2017 00:00	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 865578 Sample Description: MW-103D

DNR License/Well #: 4189/040

Sampled: 05/09/2017 1100

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Volatile Organic Compounds 8260 Comments: Suspected methylene chloride laboratory contamination.										
1,3-Dichlorobenzene	<2.0	ug/L	2.0	6.5	50	U		05/17/2017 00:00	RLD	EPA 8260C
1,3-Dichloropropane	<2.0	ug/L	2.0	6.5	50	U		05/17/2017 00:00	RLD	EPA 8260C
1,4-Dichlorobenzene	<2.0	ug/L	2.0	6.5	50	U		05/17/2017 00:00	RLD	EPA 8260C
1,4-Dioxane	<350	ug/L	350	1200	50	U M,Y		05/17/2017 00:00	RLD	EPA 8260C
2,2-Dichloropropane	<2.5	ug/L	2.5	7.5	50	U		05/17/2017 00:00	RLD	EPA 8260C
2-Butanone	<25	ug/L	25	75	50	U		05/17/2017 00:00	RLD	EPA 8260C
2-Chlorotoluene	<1.5	ug/L	1.5	5.5	50	U		05/17/2017 00:00	RLD	EPA 8260C
2-Hexanone	<12	ug/L	12	41	50	U		05/17/2017 00:00	RLD	EPA 8260C
4-Chlorotoluene	<2.0	ug/L	2.0	6.0	50	U		05/17/2017 00:00	RLD	EPA 8260C
4-Methyl-2-pentanone	<12	ug/L	12	41	50	U		05/17/2017 00:00	RLD	EPA 8260C
Acetone	48	ug/L	15	50	50	J M,Y,B		05/17/2017 00:00	RLD	EPA 8260C
Benzene	<0.90	ug/L	0.90	3.0	50	U		05/17/2017 00:00	RLD	EPA 8260C
Bromobenzene	<2.0	ug/L	2.0	7.5	50	U		05/17/2017 00:00	RLD	EPA 8260C
Bromochloromethane	<1.5	ug/L	1.5	5.0	50	U		05/17/2017 00:00	RLD	EPA 8260C
Bromodichloromethane	<0.80	ug/L	0.80	2.7	50	U		05/17/2017 00:00	RLD	EPA 8260C
Bromoform	<2.0	ug/L	2.0	6.0	50	U		05/17/2017 00:00	RLD	EPA 8260C
Bromomethane	<4.0	ug/L	4.0	14	50	U		05/17/2017 00:00	RLD	EPA 8260C
Carbon disulfide	<3.5	ug/L	3.5	13	50	U M,Y		05/17/2017 00:00	RLD	EPA 8260C
Carbon tetrachloride	<2.5	ug/L	2.5	9.0	50	U		05/17/2017 00:00	RLD	EPA 8260C
Chlorobenzene	<2.0	ug/L	2.0	7.5	50	U		05/17/2017 00:00	RLD	EPA 8260C
Chloroethane	<3.5	ug/L	3.5	12	50	U		05/17/2017 00:00	RLD	EPA 8260C
Chloroform	<1.5	ug/L	1.5	5.5	50	U		05/17/2017 00:00	RLD	EPA 8260C
Chloromethane	<2.0	ug/L	2.0	6.5	50	U		05/17/2017 00:00	RLD	EPA 8260C
cis-1,2-Dichloroethene	49	ug/L	3.5	12	50			05/17/2017 00:00	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 865578 Sample Description:MW-103D

DNR License/Well #: 4189/040

Sampled: 05/09/2017 1100

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Volatile Organic Compounds 8260 Comments: Suspected methylene chloride laboratory contamination.										
cis-1,3-Dichloropropene	<0.55	ug/L	0.55	1.9	50	U		05/17/2017 00:00	RLD	EPA 8260C
Dibromochloromethane	<1.5	ug/L	1.5	5.0	50	U		05/17/2017 00:00	RLD	EPA 8260C
Dibromomethane	<2.5	ug/L	2.5	8.5	50	U		05/17/2017 00:00	RLD	EPA 8260C
Dichlorodifluoromethane	<3.0	ug/L	3.0	9.5	50	U		05/17/2017 00:00	RLD	EPA 8260C
Diisopropyl ether	<2.0	ug/L	2.0	7.0	50	U		05/17/2017 00:00	RLD	EPA 8260C
Ethylbenzene	<2.0	ug/L	2.0	7.5	50	U		05/17/2017 00:00	RLD	EPA 8260C
Hexachlorobutadiene	<2.5	ug/L	2.5	8.0	50	U		05/17/2017 00:00	RLD	EPA 8260C
Isopropylbenzene	<2.0	ug/L	2.0	6.0	50	U		05/17/2017 00:00	RLD	EPA 8260C
m & p-Xylene	<3.5	ug/L	3.5	12	50	U		05/17/2017 00:00	RLD	EPA 8260C
Methyl tert-butyl ether	<2.0	ug/L	2.0	6.0	50	U		05/17/2017 00:00	RLD	EPA 8260C
Methylene chloride	14	ug/L	2.5	8.0	50	Y		05/17/2017 00:00	RLD	EPA 8260C
n-Butylbenzene	<1.5	ug/L	1.5	5.5	50	U		05/17/2017 00:00	RLD	EPA 8260C
n-Propylbenzene	<2.0	ug/L	2.0	6.5	50	U		05/17/2017 00:00	RLD	EPA 8260C
Naphthalene	<1.5	ug/L	1.5	5.0	50	U		05/17/2017 00:00	RLD	EPA 8260C
o-Xylene	<2.0	ug/L	2.0	7.0	50	U		05/17/2017 00:00	RLD	EPA 8260C
p-Isopropyltoluene	<2.0	ug/L	2.0	6.5	50	U		05/17/2017 00:00	RLD	EPA 8260C
sec-Butylbenzene	<2.5	ug/L	2.5	8.0	50	U		05/17/2017 00:00	RLD	EPA 8260C
Styrene	<1.5	ug/L	1.5	5.5	50	U		05/17/2017 00:00	RLD	EPA 8260C
tert-Butylbenzene	<2.0	ug/L	2.0	7.0	50	U		05/17/2017 00:00	RLD	EPA 8260C
Tetrachloroethene	<2.5	ug/L	2.5	9.0	50	U		05/17/2017 00:00	RLD	EPA 8260C
Tetrahydrofuran	<20	ug/L	20	75	50	U		05/17/2017 00:00	RLD	EPA 8260C
Toluene	<2.0	ug/L	2.0	6.5	50	U		05/17/2017 00:00	RLD	EPA 8260C
trans-1,2-Dichloroethene	<2.0	ug/L	2.0	7.0	50	U		05/17/2017 00:00	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.95	ug/L	0.95	3.2	50	U		05/17/2017 00:00	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 865578 Sample Description:MW-103D

DNR License/Well #: 4189/040

Sampled: 05/09/2017 1100

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Volatile Organic Compounds 8260 Comments: Suspected methylene chloride laboratory contamination.										
Trichloroethene	380	ug/L	2.5	8.5	50			05/17/2017 00:00	RLD	EPA 8260C
Trichlorofluoromethane	<4.5	ug/L	4.5	7.0	50	U		05/17/2017 00:00	RLD	EPA 8260C
Vinyl acetate	<11	ug/L	11	37	50	U		05/17/2017 00:00	RLD	EPA 8260C
Vinyl chloride	1.5	ug/L	0.95	3.2	50	J		05/17/2017 00:00	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications

Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
Louisiana NELAP (primary) ID# ACC20160002
Illinois NELAP Lab ID# 200073
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Virginia NELAP Lab ID# 460203
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ISO/IEC 17025-2005 A2LA Cert # 3806.01
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID ACC20160002
Pennsylvania NELAP Lab ID# 68-04201, # 008

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase: OCONOMOWOC, WI
 Project #: 117-7413001.01
 Folder #: 127236
 Purchase Order #:
 Contract #: 2747

Page 1 of 2
 Arrival Temperature: 3.4
 Report Date: 05/26/2017
 Date Received: 05/10/2017
 Reprint Date: 05/26/2017

CT LAB#: 865579	Sample Description: MW-103D	DNR License/Well #: 4189/040	Sampled: 05/09/2017 1100
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Metals Results										
Dissolved Iron	<0.059	mg/L	0.059	0.20	1	U		05/10/2017 23:09	NAH	EPA 6010C
Dissolved Manganese	312	ug/L	2.2	7.3	1			05/10/2017 23:09	NAH	EPA 6010C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

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Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
Louisiana NELAP (primary) ID# ACC20160002
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Kansas NELAP Lab ID# E-10368
Virginia NELAP Lab ID# 460203
Maryland Lab ID# WI00061
ISO/IEC 17025-2005 A2LA Cert # 3806.01
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID ACC20160002
Pennsylvania NELAP Lab ID# 68-04201, # 008

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase: OCONOMOWOC, WI
 Project #: 117-7413001.01
 Folder #: 127236
 Purchase Order #:
 Contract #: 2747

Page 1 of 5
 Arrival Temperature: 3.4
 Report Date: 05/26/2017
 Date Received: 05/10/2017
 Reprint Date: 05/26/2017

CT LAB#: 865580	Sample Description: MW-103D DUP	DNR License/Well #: 4189/040	Sampled: 05/09/2017 1105
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results										
Alkalinity Total	440	mg/L	10	34	1			05/22/2017 10:56	SAW	EPA 310.2
Total Chloride	170	mg/L	3.5	12	5			05/12/2017 03:22	AGK	EPA 9056A
Total Sulfate	70	mg/L	1.0	3.2	1			05/12/2017 03:01	AGK	EPA 9056A
Total Organic Carbon	5.4	mg/L	0.50	1.7	1			05/17/2017 21:12	AGK	EPA 9060A
Metals Results										
Total Iron	0.0487	mg/L	0.034	0.11	1	J	05/11/2017 15:00	05/12/2017 19:47	NAH	EPA 6010C
Total Manganese	369	ug/L	3.4	11	1		05/11/2017 15:00	05/12/2017 19:47	NAH	EPA 6010C
Organic Results										
Acetylene	<0.23	ug/L	0.23	0.77	1	U	05/18/2017 10:45	05/22/2017 13:20	AGK	Mod RSK 175
Ethane	<0.40	ug/L	0.40	1.2	1	U	05/18/2017 10:45	05/22/2017 13:20	AGK	Mod RSK 175
Ethene	<0.50	ug/L	0.50	1.8	1	U	05/18/2017 10:45	05/22/2017 13:20	AGK	Mod RSK 175
Methane	0.50	ug/L	0.40	1.2	1	J	05/18/2017 10:45	05/22/2017 13:20	AGK	Mod RSK 175
Volatile Organic Compounds 8260 Comments: Suspected methylene chloride laboratory contamination.										
1,1,1,2-Tetrachloroethane	<2.0	ug/L	2.0	6.5	50	U		05/17/2017 00:28	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 865580 Sample Description: MW-103D DUP

DNR License/Well #: 4189/040

Sampled: 05/09/2017 1105

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Volatile Organic Compounds 8260 Comments: Suspected methylene chloride laboratory contamination.										
1,1,1-Trichloroethane	34	ug/L	2.5	8.5	50			05/17/2017 00:28	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.85	ug/L	0.85	2.9	50	U		05/17/2017 00:28	RLD	EPA 8260C
1,1,2-Trichloroethane	<2.5	ug/L	2.5	8.0	50	U		05/17/2017 00:28	RLD	EPA 8260C
1,1-Dichloroethane	6.9	ug/L	3.0	9.5	50	J		05/17/2017 00:28	RLD	EPA 8260C
1,1-Dichloroethene	<3.0	ug/L	3.0	10	50	U		05/17/2017 00:28	RLD	EPA 8260C
1,1-Dichloropropene	<3.0	ug/L	3.0	9.5	50	U		05/17/2017 00:28	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<2.0	ug/L	2.0	6.5	50	U		05/17/2017 00:28	RLD	EPA 8260C
1,2,3-Trichloropropane	<2.0	ug/L	2.0	7.0	50	U		05/17/2017 00:28	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<2.0	ug/L	2.0	6.0	50	U		05/17/2017 00:28	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<2.0	ug/L	2.0	6.0	50	U		05/17/2017 00:28	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<4.5	ug/L	4.5	15	50	U		05/17/2017 00:28	RLD	EPA 8260C
1,2-Dibromoethane	<3.5	ug/L	3.5	12	50	U		05/17/2017 00:28	RLD	EPA 8260C
1,2-Dichlorobenzene	<2.0	ug/L	2.0	6.5	50	U		05/17/2017 00:28	RLD	EPA 8260C
1,2-Dichloroethane	<2.5	ug/L	2.5	9.0	50	U		05/17/2017 00:28	RLD	EPA 8260C
1,2-Dichloropropane	<3.5	ug/L	3.5	12	50	U		05/17/2017 00:28	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<2.5	ug/L	2.5	8.0	50	U		05/17/2017 00:28	RLD	EPA 8260C
1,3-Dichlorobenzene	<2.0	ug/L	2.0	6.5	50	U		05/17/2017 00:28	RLD	EPA 8260C
1,3-Dichloropropane	<2.0	ug/L	2.0	6.5	50	U		05/17/2017 00:28	RLD	EPA 8260C
1,4-Dichlorobenzene	<2.0	ug/L	2.0	6.5	50	U		05/17/2017 00:28	RLD	EPA 8260C
1,4-Dioxane	<350	ug/L	350	1200	50	U		05/17/2017 00:28	RLD	EPA 8260C
2,2-Dichloropropane	<2.5	ug/L	2.5	7.5	50	U		05/17/2017 00:28	RLD	EPA 8260C
2-Butanone	<25	ug/L	25	75	50	U		05/17/2017 00:28	RLD	EPA 8260C
2-Chlorotoluene	<1.5	ug/L	1.5	5.5	50	U		05/17/2017 00:28	RLD	EPA 8260C
2-Hexanone	<12	ug/L	12	41	50	U		05/17/2017 00:28	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 865580 Sample Description: MW-103D DUP

DNR License/Well #: 4189/040

Sampled: 05/09/2017 1105

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Volatile Organic Compounds 8260 Comments: Suspected methylene chloride laboratory contamination.										
4-Chlorotoluene	<2.0	ug/L	2.0	6.0	50	U		05/17/2017 00:28	RLD	EPA 8260C
4-Methyl-2-pentanone	<12	ug/L	12	41	50	U		05/17/2017 00:28	RLD	EPA 8260C
Acetone	58	ug/L	15	50	50	B		05/17/2017 00:28	RLD	EPA 8260C
Benzene	<0.90	ug/L	0.90	3.0	50	U		05/17/2017 00:28	RLD	EPA 8260C
Bromobenzene	<2.0	ug/L	2.0	7.5	50	U		05/17/2017 00:28	RLD	EPA 8260C
Bromochloromethane	<1.5	ug/L	1.5	5.0	50	U		05/17/2017 00:28	RLD	EPA 8260C
Bromodichloromethane	<0.80	ug/L	0.80	2.7	50	U		05/17/2017 00:28	RLD	EPA 8260C
Bromoform	<2.0	ug/L	2.0	6.0	50	U		05/17/2017 00:28	RLD	EPA 8260C
Bromomethane	<4.0	ug/L	4.0	14	50	U		05/17/2017 00:28	RLD	EPA 8260C
Carbon disulfide	<3.5	ug/L	3.5	13	50	U		05/17/2017 00:28	RLD	EPA 8260C
Carbon tetrachloride	<2.5	ug/L	2.5	9.0	50	U		05/17/2017 00:28	RLD	EPA 8260C
Chlorobenzene	<2.0	ug/L	2.0	7.5	50	U		05/17/2017 00:28	RLD	EPA 8260C
Chloroethane	<3.5	ug/L	3.5	12	50	U		05/17/2017 00:28	RLD	EPA 8260C
Chloroform	<1.5	ug/L	1.5	5.5	50	U		05/17/2017 00:28	RLD	EPA 8260C
Chloromethane	<2.0	ug/L	2.0	6.5	50	U		05/17/2017 00:28	RLD	EPA 8260C
cis-1,2-Dichloroethene	47	ug/L	3.5	12	50			05/17/2017 00:28	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.55	ug/L	0.55	1.9	50	U		05/17/2017 00:28	RLD	EPA 8260C
Dibromochloromethane	<1.5	ug/L	1.5	5.0	50	U		05/17/2017 00:28	RLD	EPA 8260C
Dibromomethane	<2.5	ug/L	2.5	8.5	50	U		05/17/2017 00:28	RLD	EPA 8260C
Dichlorodifluoromethane	<3.0	ug/L	3.0	9.5	50	U		05/17/2017 00:28	RLD	EPA 8260C
Diisopropyl ether	<2.0	ug/L	2.0	7.0	50	U		05/17/2017 00:28	RLD	EPA 8260C
Ethylbenzene	<2.0	ug/L	2.0	7.5	50	U		05/17/2017 00:28	RLD	EPA 8260C
Hexachlorobutadiene	<2.5	ug/L	2.5	8.0	50	U		05/17/2017 00:28	RLD	EPA 8260C
Isopropylbenzene	<2.0	ug/L	2.0	6.0	50	U		05/17/2017 00:28	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 865580 Sample Description: MW-103D DUP

DNR License/Well #: 4189/040

Sampled: 05/09/2017 1105

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Volatile Organic Compounds 8260 Comments: Suspected methylene chloride laboratory contamination.										
m & p-Xylene	<3.5	ug/L	3.5	12	50	U		05/17/2017 00:28	RLD	EPA 8260C
Methyl tert-butyl ether	<2.0	ug/L	2.0	6.0	50	U		05/17/2017 00:28	RLD	EPA 8260C
Methylene chloride	16	ug/L	2.5	8.0	50			05/17/2017 00:28	RLD	EPA 8260C
n-Butylbenzene	<1.5	ug/L	1.5	5.5	50	U		05/17/2017 00:28	RLD	EPA 8260C
n-Propylbenzene	<2.0	ug/L	2.0	6.5	50	U		05/17/2017 00:28	RLD	EPA 8260C
Naphthalene	<1.5	ug/L	1.5	5.0	50	U		05/17/2017 00:28	RLD	EPA 8260C
o-Xylene	<2.0	ug/L	2.0	7.0	50	U		05/17/2017 00:28	RLD	EPA 8260C
p-Isopropyltoluene	<2.0	ug/L	2.0	6.5	50	U		05/17/2017 00:28	RLD	EPA 8260C
sec-Butylbenzene	<2.5	ug/L	2.5	8.0	50	U		05/17/2017 00:28	RLD	EPA 8260C
Styrene	<1.5	ug/L	1.5	5.5	50	U		05/17/2017 00:28	RLD	EPA 8260C
tert-Butylbenzene	<2.0	ug/L	2.0	7.0	50	U		05/17/2017 00:28	RLD	EPA 8260C
Tetrachloroethene	<2.5	ug/L	2.5	9.0	50	U		05/17/2017 00:28	RLD	EPA 8260C
Tetrahydrofuran	<20	ug/L	20	75	50	U		05/17/2017 00:28	RLD	EPA 8260C
Toluene	<2.0	ug/L	2.0	6.5	50	U		05/17/2017 00:28	RLD	EPA 8260C
trans-1,2-Dichloroethene	<2.0	ug/L	2.0	7.0	50	U		05/17/2017 00:28	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.95	ug/L	0.95	3.2	50	U		05/17/2017 00:28	RLD	EPA 8260C
Trichloroethene	360	ug/L	2.5	8.5	50			05/17/2017 00:28	RLD	EPA 8260C
Trichlorofluoromethane	<4.5	ug/L	4.5	7.0	50	U		05/17/2017 00:28	RLD	EPA 8260C
Vinyl acetate	<11	ug/L	11	37	50	U		05/17/2017 00:28	RLD	EPA 8260C
Vinyl chloride	1.2	ug/L	0.95	3.2	50	J		05/17/2017 00:28	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications

Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
Louisiana NELAP (primary) ID# ACC20160002
Illinois NELAP Lab ID# 200073
Kansas NELAP Lab ID# E-10368
Virginia NELAP Lab ID# 460203
Maryland Lab ID# WI00061
ISO/IEC 17025-2005 A2LA Cert # 3806.01
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID ACC20160002
Pennsylvania NELAP Lab ID# 68-04201, # 008

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase: OCONOMOWOC, WI
 Project #: 117-7413001.01
 Folder #: 127236
 Purchase Order #:
 Contract #: 2747

Page 1 of 2
 Arrival Temperature: 3.4
 Report Date: 05/26/2017
 Date Received: 05/10/2017
 Reprint Date: 05/26/2017

CT LAB#: 865581	Sample Description: MW-103D DUP	DNR License/Well #: 4189/040	Sampled: 05/09/2017 1105
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Metals Results										
Dissolved Iron	<0.059	mg/L	0.059	0.20	1	U		05/10/2017 23:16	NAH	EPA 6010C
Dissolved Manganese	316	ug/L	2.2	7.3	1			05/10/2017 23:16	NAH	EPA 6010C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

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All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

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Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
Louisiana NELAP (primary) ID# ACC20160002
Illinois NELAP Lab ID# 200073
Kansas NELAP Lab ID# E-10368
Virginia NELAP Lab ID# 460203
Maryland Lab ID# WI00061
ISO/IEC 17025-2005 A2LA Cert # 3806.01
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID ACC20160002
Pennsylvania NELAP Lab ID# 68-04201, # 008

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase: OCONOMOWOC, WI
 Project #: 117-7413001.01
 Folder #: 127236
 Purchase Order #:
 Contract #: 2747

Page 1 of 5
 Arrival Temperature: 3.4
 Report Date: 05/26/2017
 Date Received: 05/10/2017
 Reprint Date: 05/26/2017

CT LAB#: 865582	Sample Description: MW-12D	DNR License/Well #: 4189/021	Sampled: 05/09/2017 1205
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Field Results										
Dissolved Oxygen (Field)	0.22	mg/L	N/A	N/A	1			05/24/2017 00:00	BMS	
OX/REDOX (Field)	-34	MV	N/A	N/A	1			05/24/2017 00:00	BMS	
Color (Field)	CLEAR		N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Conductivity (Field)	1370	umhos/cm	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Groundwater Elevation (Field)	845.87	Feet MSL	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
pH (Field)	7.44	S.U.	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Temperature (Field)	9.62	Deg. C	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Turbidity (Field)	NO		N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Inorganic Results										
Alkalinity Total	410	mg/L	10	34	1			05/22/2017 10:57	SAW	EPA 310.2
Total Chloride	180	mg/L	4.2	14	6			05/12/2017 04:10	AGK	EPA 9056A
Total Sulfate	54	mg/L	1.0	3.2	1			05/12/2017 03:49	AGK	EPA 9056A
Total Organic Carbon	2.9	mg/L	0.50	1.7	1			05/17/2017 21:25	AGK	EPA 9060A
Metals Results										
Total Iron	1.22	mg/L	0.034	0.11	1		05/11/2017 15:00	05/12/2017 19:54	NAH	EPA 6010C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

The groundwater elevation listed above is from the May 2016 sampling round and therefore incorrect for this round.

CT LAB#: 865582 Sample Description: MW-12D

DNR License/Well #: 4189/021

Sampled: 05/09/2017 1205

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Total Manganese	30.3	ug/L	3.4	11	1		05/11/2017 15:00	05/12/2017 19:54	NAH	EPA 6010C
Organic Results										
Acetylene	<0.23	ug/L	0.23	0.77	1	U	05/18/2017 10:45	05/22/2017 13:10	AGK	Mod RSK 175
Ethane	<0.40	ug/L	0.40	1.2	1	U	05/18/2017 10:45	05/22/2017 13:10	AGK	Mod RSK 175
Ethene	<0.50	ug/L	0.50	1.8	1	U	05/18/2017 10:45	05/22/2017 13:10	AGK	Mod RSK 175
Methane	1.7	ug/L	0.40	1.2	1		05/18/2017 10:45	05/22/2017 13:10	AGK	Mod RSK 175
1,1,1,2-Tetrachloroethane	<0.040	ug/L	0.040	0.13	1	U		05/16/2017 18:49	RLD	EPA 8260C
1,1,1-Trichloroethane	0.29	ug/L	0.050	0.17	1			05/16/2017 18:49	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.017	ug/L	0.017	0.057	1	U		05/16/2017 18:49	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.050	ug/L	0.050	0.16	1	U		05/16/2017 18:49	RLD	EPA 8260C
1,1-Dichloroethane	4.6	ug/L	0.060	0.19	1			05/16/2017 18:49	RLD	EPA 8260C
1,1-Dichloroethene	0.12	ug/L	0.060	0.20	1	J		05/16/2017 18:49	RLD	EPA 8260C
1,1-Dichloropropene	<0.060	ug/L	0.060	0.19	1	U		05/16/2017 18:49	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/16/2017 18:49	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.040	ug/L	0.040	0.14	1	U		05/16/2017 18:49	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.040	ug/L	0.040	0.12	1	U		05/16/2017 18:49	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.040	ug/L	0.040	0.12	1	U		05/16/2017 18:49	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.090	ug/L	0.090	0.29	1	U		05/16/2017 18:49	RLD	EPA 8260C
1,2-Dibromoethane	<0.070	ug/L	0.070	0.23	1	U		05/16/2017 18:49	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/16/2017 18:49	RLD	EPA 8260C
1,2-Dichloroethane	<0.050	ug/L	0.050	0.18	1	U		05/16/2017 18:49	RLD	EPA 8260C
1,2-Dichloropropane	<0.070	ug/L	0.070	0.23	1	U		05/16/2017 18:49	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<0.050	ug/L	0.050	0.16	1	U		05/16/2017 18:49	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/16/2017 18:49	RLD	EPA 8260C
1,3-Dichloropropane	<0.040	ug/L	0.040	0.13	1	U		05/16/2017 18:49	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 865582 Sample Description: MW-12D

DNR License/Well #: 4189/021

Sampled: 05/09/2017 1205

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,4-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/16/2017 18:49	RLD	EPA 8260C
1,4-Dioxane	<7.0	ug/L	7.0	23	1	U		05/16/2017 18:49	RLD	EPA 8260C
2,2-Dichloropropane	<0.050	ug/L	0.050	0.15	1	U		05/16/2017 18:49	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.5	1	U		05/16/2017 18:49	RLD	EPA 8260C
2-Chlorotoluene	<0.030	ug/L	0.030	0.11	1	U		05/16/2017 18:49	RLD	EPA 8260C
2-Hexanone	<0.24	ug/L	0.24	0.81	1	U		05/16/2017 18:49	RLD	EPA 8260C
4-Chlorotoluene	<0.040	ug/L	0.040	0.12	1	U		05/16/2017 18:49	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.24	ug/L	0.24	0.82	1	U		05/16/2017 18:49	RLD	EPA 8260C
Acetone	0.57	ug/L	0.30	1.0	1	J B		05/16/2017 18:49	RLD	EPA 8260C
Benzene	<0.018	ug/L	0.018	0.059	1	U		05/16/2017 18:49	RLD	EPA 8260C
Bromobenzene	<0.040	ug/L	0.040	0.15	1	U		05/16/2017 18:49	RLD	EPA 8260C
Bromochloromethane	<0.030	ug/L	0.030	0.099	1	U		05/16/2017 18:49	RLD	EPA 8260C
Bromodichloromethane	<0.016	ug/L	0.016	0.054	1	U		05/16/2017 18:49	RLD	EPA 8260C
Bromoform	<0.040	ug/L	0.040	0.12	1	U		05/16/2017 18:49	RLD	EPA 8260C
Bromomethane	<0.080	ug/L	0.080	0.28	1	U		05/16/2017 18:49	RLD	EPA 8260C
Carbon disulfide	<0.070	ug/L	0.070	0.25	1	U		05/16/2017 18:49	RLD	EPA 8260C
Carbon tetrachloride	<0.050	ug/L	0.050	0.18	1	U		05/16/2017 18:49	RLD	EPA 8260C
Chlorobenzene	<0.040	ug/L	0.040	0.15	1	U		05/16/2017 18:49	RLD	EPA 8260C
Chloroethane	0.29	ug/L	0.070	0.23	1			05/16/2017 18:49	RLD	EPA 8260C
Chloroform	<0.030	ug/L	0.030	0.11	1	U		05/16/2017 18:49	RLD	EPA 8260C
Chloromethane	0.091	ug/L	0.040	0.13	1	J B		05/16/2017 18:49	RLD	EPA 8260C
cis-1,2-Dichloroethene	6.3	ug/L	0.070	0.23	1			05/16/2017 18:49	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.011	ug/L	0.011	0.038	1	U		05/16/2017 18:49	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1	U		05/16/2017 18:49	RLD	EPA 8260C
Dibromomethane	<0.050	ug/L	0.050	0.17	1	U		05/16/2017 18:49	RLD	EPA 8260C
Dichlorodifluoromethane	<0.060	ug/L	0.060	0.19	1	U		05/16/2017 18:49	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 865582 Sample Description: MW-12D

DNR License/Well #: 4189/021

Sampled: 05/09/2017 1205

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Diisopropyl ether	<0.040	ug/L	0.040	0.14	1	U	05/16/2017 18:49	05/16/2017 18:49	RLD	EPA 8260C
Ethylbenzene	<0.040	ug/L	0.040	0.15	1	U	05/16/2017 18:49	05/16/2017 18:49	RLD	EPA 8260C
Hexachlorobutadiene	<0.050	ug/L	0.050	0.16	1	U	05/16/2017 18:49	05/16/2017 18:49	RLD	EPA 8260C
Isopropylbenzene	<0.040	ug/L	0.040	0.12	1	U	05/16/2017 18:49	05/16/2017 18:49	RLD	EPA 8260C
m & p-Xylene	<0.070	ug/L	0.070	0.23	1	U	05/16/2017 18:49	05/16/2017 18:49	RLD	EPA 8260C
Methyl tert-butyl ether	0.64	ug/L	0.040	0.12	1		05/16/2017 18:49	05/16/2017 18:49	RLD	EPA 8260C
Methylene chloride	<0.050	ug/L	0.050	0.16	1	U	05/16/2017 18:49	05/16/2017 18:49	RLD	EPA 8260C
n-Butylbenzene	<0.030	ug/L	0.030	0.11	1	U	05/16/2017 18:49	05/16/2017 18:49	RLD	EPA 8260C
n-Propylbenzene	<0.040	ug/L	0.040	0.13	1	U	05/16/2017 18:49	05/16/2017 18:49	RLD	EPA 8260C
Naphthalene	<0.030	ug/L	0.030	0.10	1	U	05/16/2017 18:49	05/16/2017 18:49	RLD	EPA 8260C
o-Xylene	<0.040	ug/L	0.040	0.14	1	U	05/16/2017 18:49	05/16/2017 18:49	RLD	EPA 8260C
p-Isopropyltoluene	<0.040	ug/L	0.040	0.13	1	U	05/16/2017 18:49	05/16/2017 18:49	RLD	EPA 8260C
sec-Butylbenzene	<0.050	ug/L	0.050	0.16	1	U	05/16/2017 18:49	05/16/2017 18:49	RLD	EPA 8260C
Styrene	<0.030	ug/L	0.030	0.11	1	U	05/16/2017 18:49	05/16/2017 18:49	RLD	EPA 8260C
tert-Butylbenzene	<0.040	ug/L	0.040	0.14	1	U	05/16/2017 18:49	05/16/2017 18:49	RLD	EPA 8260C
Tetrachloroethene	<0.050	ug/L	0.050	0.18	1	U	05/16/2017 18:49	05/16/2017 18:49	RLD	EPA 8260C
Tetrahydrofuran	<0.40	ug/L	0.40	1.5	1	U	05/16/2017 18:49	05/16/2017 18:49	RLD	EPA 8260C
Toluene	<0.040	ug/L	0.040	0.13	1	U	05/16/2017 18:49	05/16/2017 18:49	RLD	EPA 8260C
trans-1,2-Dichloroethene	0.40	ug/L	0.040	0.14	1		05/16/2017 18:49	05/16/2017 18:49	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.019	ug/L	0.019	0.063	1	U	05/16/2017 18:49	05/16/2017 18:49	RLD	EPA 8260C
Trichloroethene	0.11	ug/L	0.050	0.17	1	J	05/16/2017 18:49	05/16/2017 18:49	RLD	EPA 8260C
Trichlorofluoromethane	<0.090	ug/L	0.090	0.14	1	U	05/16/2017 18:49	05/16/2017 18:49	RLD	EPA 8260C
Vinyl acetate	<0.22	ug/L	0.22	0.73	1	U	05/16/2017 18:49	05/16/2017 18:49	RLD	EPA 8260C
Vinyl chloride	0.79	ug/L	0.019	0.064	1		05/16/2017 18:49	05/16/2017 18:49	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications

Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
Louisiana NELAP (primary) ID# ACC20160002
Illinois NELAP Lab ID# 200073
Kansas NELAP Lab ID# E-10368
Virginia NELAP Lab ID# 460203
Maryland Lab ID# WI00061
ISO/IEC 17025-2005 A2LA Cert # 3806.01
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID ACC20160002
Pennsylvania NELAP Lab ID# 68-04201, # 008

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase: OCONOMOWOC, WI
 Project #: 117-7413001.01
 Folder #: 127236
 Purchase Order #:
 Contract #: 2747

Page 1 of 2
 Arrival Temperature: 3.4
 Report Date: 05/26/2017
 Date Received: 05/10/2017
 Reprint Date: 05/26/2017

CT LAB#: 865583	Sample Description: MW-12D	DNR License/Well #: 4189/021	Sampled: 05/09/2017 1205
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Metals Results										
Dissolved Iron	0.906	mg/L	0.059	0.20	1			05/10/2017 23:23	NAH	EPA 6010C
Dissolved Manganese	<2.2	ug/L	2.2	7.3	1	U		05/10/2017 23:23	NAH	EPA 6010C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications
Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
Louisiana NELAP (primary) ID# ACC20160002
Illinois NELAP Lab ID# 200073
Kansas NELAP Lab ID# E-10368
Virginia NELAP Lab ID# 460203
Maryland Lab ID# WI00061
ISO/IEC 17025-2005 A2LA Cert # 3806.01
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID ACC20160002
Pennsylvania NELAP Lab ID# 68-04201, # 008

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase: OCONOMOWOC, WI
 Project #: 117-7413001.01
 Folder #: 127236
 Purchase Order #:
 Contract #: 2747

Page 1 of 6
 Arrival Temperature: 3.4
 Report Date: 05/26/2017
 Date Received: 05/10/2017
 Reprint Date: 05/26/2017

CT LAB#: 865584	Sample Description: MW-12S	DNR License/Well #: 4189/020	Sampled: 05/09/2017 1230
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Field Results										
Dissolved Oxygen (Field)	1.05	mg/L	N/A	N/A	1			05/24/2017 00:00	BMS	
OX/REDOX (Field)	55	MV	N/A	N/A	1			05/24/2017 00:00	BMS	
Color (Field)	CLEAR		N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Conductivity (Field)	1620	umhos/cm	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Groundwater Elevation (Field)	845.17	Feet MSL	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
pH (Field)	7.45	S.U.	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Temperature (Field)	7.65	Deg. C	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Turbidity (Field)	YES		N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Inorganic Results										
Alkalinity Total	410	mg/L	10	34	1			05/22/2017 10:59	SAW	EPA 310.2
Total Chloride	210	mg/L	4.2	14	6			05/12/2017 04:58	AGK	EPA 9056A
Total Sulfate	49	mg/L	1.0	3.2	1			05/12/2017 04:37	AGK	EPA 9056A
Total Organic Carbon	3.0	mg/L	0.50	1.7	1			05/17/2017 22:09	AGK	EPA 9060A
Metals Results										
Total Iron	0.0994	mg/L	0.034	0.11	1	J	05/11/2017 15:00	05/12/2017 20:00	NAH	EPA 6010C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

The groundwater elevation listed above is from the May 2016 sampling round and therefore incorrect for this round.

CT LAB#: 865584 Sample Description: MW-12S

DNR License/Well #: 4189/020

Sampled: 05/09/2017 1230

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Total Manganese	118	ug/L	3.4	11	1		05/11/2017 15:00	05/12/2017 20:00	NAH	EPA 6010C
Organic Results										
Acetylene	<0.23	ug/L	0.23	0.77	1	U	05/18/2017 10:45	05/22/2017 12:51	AGK	Mod RSK 175
Ethane	<0.40	ug/L	0.40	1.2	1	U	05/18/2017 10:45	05/22/2017 12:51	AGK	Mod RSK 175
Ethene	<0.50	ug/L	0.50	1.8	1	U	05/18/2017 10:45	05/22/2017 12:51	AGK	Mod RSK 175
Methane	1.2	ug/L	0.40	1.2	1		05/18/2017 10:45	05/22/2017 12:51	AGK	Mod RSK 175
Volatile Organic Compounds 8260 Comments: Suspected methylene chloride laboratory contamination.										
1,1,1,2-Tetrachloroethane	<0.20	ug/L	0.20	0.65	5	U		05/17/2017 00:56	RLD	EPA 8260C
1,1,1-Trichloroethane	35	ug/L	0.25	0.85	5			05/17/2017 00:56	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.085	ug/L	0.085	0.29	5	U		05/17/2017 00:56	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.25	ug/L	0.25	0.80	5	U		05/17/2017 00:56	RLD	EPA 8260C
1,1-Dichloroethane	13	ug/L	0.30	0.95	5			05/17/2017 00:56	RLD	EPA 8260C
1,1-Dichloroethene	5.2	ug/L	0.30	1.0	5			05/17/2017 00:56	RLD	EPA 8260C
1,1-Dichloropropene	<0.30	ug/L	0.30	0.95	5	U		05/17/2017 00:56	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.20	ug/L	0.20	0.65	5	U		05/17/2017 00:56	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.20	ug/L	0.20	0.70	5	U		05/17/2017 00:56	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.20	ug/L	0.20	0.60	5	U		05/17/2017 00:56	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.20	ug/L	0.20	0.60	5	U		05/17/2017 00:56	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.45	ug/L	0.45	1.5	5	U		05/17/2017 00:56	RLD	EPA 8260C
1,2-Dibromoethane	<0.35	ug/L	0.35	1.2	5	U		05/17/2017 00:56	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.20	ug/L	0.20	0.65	5	U		05/17/2017 00:56	RLD	EPA 8260C
1,2-Dichloroethane	<0.25	ug/L	0.25	0.90	5	U		05/17/2017 00:56	RLD	EPA 8260C
1,2-Dichloropropane	<0.35	ug/L	0.35	1.2	5	U		05/17/2017 00:56	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<0.25	ug/L	0.25	0.80	5	U		05/17/2017 00:56	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 865584 Sample Description: MW-12S

DNR License/Well #: 4189/020

Sampled: 05/09/2017 1230

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Volatile Organic Compounds 8260 Comments: Suspected methylene chloride laboratory contamination.										
1,3-Dichlorobenzene	<0.20	ug/L	0.20	0.65	5	U		05/17/2017 00:56	RLD	EPA 8260C
1,3-Dichloropropane	<0.20	ug/L	0.20	0.65	5	U		05/17/2017 00:56	RLD	EPA 8260C
1,4-Dichlorobenzene	<0.20	ug/L	0.20	0.65	5	U		05/17/2017 00:56	RLD	EPA 8260C
1,4-Dioxane	<35	ug/L	35	120	5	U		05/17/2017 00:56	RLD	EPA 8260C
2,2-Dichloropropane	<0.25	ug/L	0.25	0.75	5	U		05/17/2017 00:56	RLD	EPA 8260C
2-Butanone	<2.5	ug/L	2.5	7.5	5	U		05/17/2017 00:56	RLD	EPA 8260C
2-Chlorotoluene	<0.15	ug/L	0.15	0.55	5	U		05/17/2017 00:56	RLD	EPA 8260C
2-Hexanone	<1.2	ug/L	1.2	4.1	5	U		05/17/2017 00:56	RLD	EPA 8260C
4-Chlorotoluene	<0.20	ug/L	0.20	0.60	5	U		05/17/2017 00:56	RLD	EPA 8260C
4-Methyl-2-pentanone	<1.2	ug/L	1.2	4.1	5	U		05/17/2017 00:56	RLD	EPA 8260C
Acetone	4.8	ug/L	1.5	5.0	5	J B		05/17/2017 00:56	RLD	EPA 8260C
Benzene	<0.090	ug/L	0.090	0.30	5	U		05/17/2017 00:56	RLD	EPA 8260C
Bromobenzene	<0.20	ug/L	0.20	0.75	5	U		05/17/2017 00:56	RLD	EPA 8260C
Bromochloromethane	<0.15	ug/L	0.15	0.50	5	U		05/17/2017 00:56	RLD	EPA 8260C
Bromodichloromethane	<0.080	ug/L	0.080	0.27	5	U		05/17/2017 00:56	RLD	EPA 8260C
Bromoform	<0.20	ug/L	0.20	0.60	5	U		05/17/2017 00:56	RLD	EPA 8260C
Bromomethane	<0.40	ug/L	0.40	1.4	5	U		05/17/2017 00:56	RLD	EPA 8260C
Carbon disulfide	<0.35	ug/L	0.35	1.3	5	U		05/17/2017 00:56	RLD	EPA 8260C
Carbon tetrachloride	<0.25	ug/L	0.25	0.90	5	U		05/17/2017 00:56	RLD	EPA 8260C
Chlorobenzene	<0.20	ug/L	0.20	0.75	5	U		05/17/2017 00:56	RLD	EPA 8260C
Chloroethane	<0.35	ug/L	0.35	1.2	5	U		05/17/2017 00:56	RLD	EPA 8260C
Chloroform	<0.15	ug/L	0.15	0.55	5	U		05/17/2017 00:56	RLD	EPA 8260C
Chloromethane	<0.20	ug/L	0.20	0.65	5	U		05/17/2017 00:56	RLD	EPA 8260C
cis-1,2-Dichloroethene	26	ug/L	0.35	1.2	5			05/17/2017 00:56	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 865584 Sample Description: MW-12S

DNR License/Well #: 4189/020

Sampled: 05/09/2017 1230

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Volatile Organic Compounds 8260 Comments: Suspected methylene chloride laboratory contamination.										
cis-1,3-Dichloropropene	<0.055	ug/L	0.055	0.19	5	U		05/17/2017 00:56	RLD	EPA 8260C
Dibromochloromethane	<0.15	ug/L	0.15	0.50	5	U		05/17/2017 00:56	RLD	EPA 8260C
Dibromomethane	<0.25	ug/L	0.25	0.85	5	U		05/17/2017 00:56	RLD	EPA 8260C
Dichlorodifluoromethane	<0.30	ug/L	0.30	0.95	5	U		05/17/2017 00:56	RLD	EPA 8260C
Diisopropyl ether	<0.20	ug/L	0.20	0.70	5	U		05/17/2017 00:56	RLD	EPA 8260C
Ethylbenzene	<0.20	ug/L	0.20	0.75	5	U		05/17/2017 00:56	RLD	EPA 8260C
Hexachlorobutadiene	<0.25	ug/L	0.25	0.80	5	U		05/17/2017 00:56	RLD	EPA 8260C
Isopropylbenzene	<0.20	ug/L	0.20	0.60	5	U		05/17/2017 00:56	RLD	EPA 8260C
m & p-Xylene	<0.35	ug/L	0.35	1.2	5	U		05/17/2017 00:56	RLD	EPA 8260C
Methyl tert-butyl ether	<0.20	ug/L	0.20	0.60	5	U		05/17/2017 00:56	RLD	EPA 8260C
Methylene chloride	2.7	ug/L	0.25	0.80	5			05/17/2017 00:56	RLD	EPA 8260C
n-Butylbenzene	<0.15	ug/L	0.15	0.55	5	U		05/17/2017 00:56	RLD	EPA 8260C
n-Propylbenzene	<0.20	ug/L	0.20	0.65	5	U		05/17/2017 00:56	RLD	EPA 8260C
Naphthalene	<0.15	ug/L	0.15	0.50	5	U		05/17/2017 00:56	RLD	EPA 8260C
o-Xylene	<0.20	ug/L	0.20	0.70	5	U		05/17/2017 00:56	RLD	EPA 8260C
p-Isopropyltoluene	<0.20	ug/L	0.20	0.65	5	U		05/17/2017 00:56	RLD	EPA 8260C
sec-Butylbenzene	<0.25	ug/L	0.25	0.80	5	U		05/17/2017 00:56	RLD	EPA 8260C
Styrene	<0.15	ug/L	0.15	0.55	5	U		05/17/2017 00:56	RLD	EPA 8260C
tert-Butylbenzene	<0.20	ug/L	0.20	0.70	5	U		05/17/2017 00:56	RLD	EPA 8260C
Tetrachloroethene	<0.25	ug/L	0.25	0.90	5	U		05/17/2017 00:56	RLD	EPA 8260C
Tetrahydrofuran	<2.0	ug/L	2.0	7.5	5	U		05/17/2017 00:56	RLD	EPA 8260C
Toluene	<0.20	ug/L	0.20	0.65	5	U		05/17/2017 00:56	RLD	EPA 8260C
trans-1,2-Dichloroethene	6.8	ug/L	0.20	0.70	5			05/17/2017 00:56	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.095	ug/L	0.095	0.32	5	U		05/17/2017 00:56	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 865584 Sample Description: MW-12S

DNR License/Well #: 4189/020

Sampled: 05/09/2017 1230

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Volatile Organic Compounds 8260 Comments: Suspected methylene chloride laboratory contamination.										
Trichloroethene	64	ug/L	0.25	0.85	5			05/17/2017 00:56	RLD	EPA 8260C
Trichlorofluoromethane	<0.45	ug/L	0.45	0.70	5	U		05/17/2017 00:56	RLD	EPA 8260C
Vinyl acetate	<1.1	ug/L	1.1	3.7	5	U		05/17/2017 00:56	RLD	EPA 8260C
Vinyl chloride	0.52	ug/L	0.095	0.32	5			05/17/2017 00:56	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications
Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
Louisiana NELAP (primary) ID# ACC20160002
Illinois NELAP Lab ID# 200073
Kansas NELAP Lab ID# E-10368
Virginia NELAP Lab ID# 460203
Maryland Lab ID# WI00061
ISO/IEC 17025-2005 A2LA Cert # 3806.01
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID ACC20160002
Pennsylvania NELAP Lab ID# 68-04201, # 008

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase: OCONOMOWOC, WI
 Project #: 117-7413001.01
 Folder #: 127236
 Purchase Order #:
 Contract #: 2747

Page 1 of 2
 Arrival Temperature: 3.4
 Report Date: 05/26/2017
 Date Received: 05/10/2017
 Reprint Date: 05/26/2017

CT LAB#: 865585	Sample Description: MW-12S	DNR License/Well #: 4189/020	Sampled: 05/09/2017 1230
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Metals Results										
Dissolved Iron	<0.059	mg/L	0.059	0.20	1	U		05/10/2017 23:29	NAH	EPA 6010C
Dissolved Manganese	67.1	ug/L	2.2	7.3	1			05/10/2017 23:29	NAH	EPA 6010C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

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Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

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Maryland Lab ID# WI00061
ISO/IEC 17025-2005 A2LA Cert # 3806.01
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID ACC20160002
Pennsylvania NELAP Lab ID# 68-04201, # 008

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase: OCONOMOWOC, WI
 Project #: 117-7413001.01
 Folder #: 127236
 Purchase Order #:
 Contract #: 2747

Page 1 of 5
 Arrival Temperature: 3.4
 Report Date: 05/26/2017
 Date Received: 05/10/2017
 Reprint Date: 05/26/2017

CT LAB#: 865586	Sample Description: MW-12B	DNR License/Well #: 4189/022	Sampled: 05/09/2017 1335
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Field Results										
Dissolved Oxygen (Field)	0.70	mg/L	N/A	N/A	1			05/24/2017 00:00	BMS	
OX/REDOX (Field)	-75	MV	N/A	N/A	1			05/24/2017 00:00	BMS	
Color (Field)	CLEAR		N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Conductivity (Field)	1040	umhos/cm	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Groundwater Elevation (Field)	846.03	Feet MSL	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
pH (Field)	8.27	S.U.	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Temperature (Field)	10.84	Deg. C	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Turbidity (Field)	NO		N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Inorganic Results										
Alkalinity Total	340	mg/L	10	34	1			05/22/2017 11:00	SAW	EPA 310.2
Total Chloride	140	mg/L	2.8	9.6	4			05/12/2017 05:46	AGK	EPA 9056A
Total Sulfate	30	mg/L	1.0	3.2	1			05/12/2017 05:25	AGK	EPA 9056A
Total Organic Carbon	1.2	mg/L	0.50	1.7	1	J		05/17/2017 22:22	AGK	EPA 9060A
Metals Results										
Total Iron	0.268	mg/L	0.034	0.11	1		05/11/2017 15:00	05/12/2017 20:07	NAH	EPA 6010C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis
 The groundwater elevation listed above is from the May 2016 sampling round and therefore incorrect for this round.

CT LAB#: 865586 Sample Description: MW-12B

DNR License/Well #: 4189/022

Sampled: 05/09/2017 1335

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Total Manganese	12.2	ug/L	3.4	11	1		05/11/2017 15:00	05/12/2017 20:07	NAH	EPA 6010C
Organic Results										
Acetylene	<0.23	ug/L	0.23	0.77	1	U	05/18/2017 10:45	05/22/2017 12:39	AGK	Mod RSK 175
Ethane	<0.40	ug/L	0.40	1.2	1	U	05/18/2017 10:45	05/22/2017 12:39	AGK	Mod RSK 175
Ethene	<0.50	ug/L	0.50	1.8	1	U	05/18/2017 10:45	05/22/2017 12:39	AGK	Mod RSK 175
Methane	2.2	ug/L	0.40	1.2	1		05/18/2017 10:45	05/22/2017 12:39	AGK	Mod RSK 175
1,1,1,2-Tetrachloroethane	<0.040	ug/L	0.040	0.13	1	U		05/16/2017 19:17	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.050	ug/L	0.050	0.17	1	U		05/16/2017 19:17	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.017	ug/L	0.017	0.057	1	U		05/16/2017 19:17	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.050	ug/L	0.050	0.16	1	U		05/16/2017 19:17	RLD	EPA 8260C
1,1-Dichloroethane	<0.060	ug/L	0.060	0.19	1	U		05/16/2017 19:17	RLD	EPA 8260C
1,1-Dichloroethene	<0.060	ug/L	0.060	0.20	1	U		05/16/2017 19:17	RLD	EPA 8260C
1,1-Dichloropropene	<0.060	ug/L	0.060	0.19	1	U		05/16/2017 19:17	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/16/2017 19:17	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.040	ug/L	0.040	0.14	1	U		05/16/2017 19:17	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.040	ug/L	0.040	0.12	1	U		05/16/2017 19:17	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.040	ug/L	0.040	0.12	1	U		05/16/2017 19:17	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.090	ug/L	0.090	0.29	1	U		05/16/2017 19:17	RLD	EPA 8260C
1,2-Dibromoethane	<0.070	ug/L	0.070	0.23	1	U		05/16/2017 19:17	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/16/2017 19:17	RLD	EPA 8260C
1,2-Dichloroethane	<0.050	ug/L	0.050	0.18	1	U		05/16/2017 19:17	RLD	EPA 8260C
1,2-Dichloropropane	<0.070	ug/L	0.070	0.23	1	U		05/16/2017 19:17	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<0.050	ug/L	0.050	0.16	1	U		05/16/2017 19:17	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/16/2017 19:17	RLD	EPA 8260C
1,3-Dichloropropane	<0.040	ug/L	0.040	0.13	1	U		05/16/2017 19:17	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 865586 Sample Description:MW-12B

DNR License/Well #: 4189/022

Sampled: 05/09/2017 1335

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,4-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/16/2017 19:17	RLD	EPA 8260C
1,4-Dioxane	<7.0	ug/L	7.0	23	1	U		05/16/2017 19:17	RLD	EPA 8260C
2,2-Dichloropropane	<0.050	ug/L	0.050	0.15	1	U		05/16/2017 19:17	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.5	1	U		05/16/2017 19:17	RLD	EPA 8260C
2-Chlorotoluene	<0.030	ug/L	0.030	0.11	1	U		05/16/2017 19:17	RLD	EPA 8260C
2-Hexanone	<0.24	ug/L	0.24	0.81	1	U		05/16/2017 19:17	RLD	EPA 8260C
4-Chlorotoluene	<0.040	ug/L	0.040	0.12	1	U		05/16/2017 19:17	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.24	ug/L	0.24	0.82	1	U		05/16/2017 19:17	RLD	EPA 8260C
Acetone	0.39	ug/L	0.30	1.0	1	J B		05/16/2017 19:17	RLD	EPA 8260C
Benzene	<0.018	ug/L	0.018	0.059	1	U		05/16/2017 19:17	RLD	EPA 8260C
Bromobenzene	<0.040	ug/L	0.040	0.15	1	U		05/16/2017 19:17	RLD	EPA 8260C
Bromochloromethane	<0.030	ug/L	0.030	0.099	1	U		05/16/2017 19:17	RLD	EPA 8260C
Bromodichloromethane	<0.016	ug/L	0.016	0.054	1	U		05/16/2017 19:17	RLD	EPA 8260C
Bromoform	<0.040	ug/L	0.040	0.12	1	U		05/16/2017 19:17	RLD	EPA 8260C
Bromomethane	<0.080	ug/L	0.080	0.28	1	U		05/16/2017 19:17	RLD	EPA 8260C
Carbon disulfide	<0.070	ug/L	0.070	0.25	1	U		05/16/2017 19:17	RLD	EPA 8260C
Carbon tetrachloride	<0.050	ug/L	0.050	0.18	1	U		05/16/2017 19:17	RLD	EPA 8260C
Chlorobenzene	<0.040	ug/L	0.040	0.15	1	U		05/16/2017 19:17	RLD	EPA 8260C
Chloroethane	<0.070	ug/L	0.070	0.23	1	U		05/16/2017 19:17	RLD	EPA 8260C
Chloroform	<0.030	ug/L	0.030	0.11	1	U		05/16/2017 19:17	RLD	EPA 8260C
Chloromethane	0.063	ug/L	0.040	0.13	1	J B		05/16/2017 19:17	RLD	EPA 8260C
cis-1,2-Dichloroethene	<0.070	ug/L	0.070	0.23	1	U		05/16/2017 19:17	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.011	ug/L	0.011	0.038	1	U		05/16/2017 19:17	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1	U		05/16/2017 19:17	RLD	EPA 8260C
Dibromomethane	<0.050	ug/L	0.050	0.17	1	U		05/16/2017 19:17	RLD	EPA 8260C
Dichlorodifluoromethane	<0.060	ug/L	0.060	0.19	1	U		05/16/2017 19:17	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 865586 Sample Description:MW-12B

DNR License/Well #: 4189/022

Sampled: 05/09/2017 1335

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Diisopropyl ether	<0.040	ug/L	0.040	0.14	1	U		05/16/2017 19:17	RLD	EPA 8260C
Ethylbenzene	<0.040	ug/L	0.040	0.15	1	U		05/16/2017 19:17	RLD	EPA 8260C
Hexachlorobutadiene	<0.050	ug/L	0.050	0.16	1	U		05/16/2017 19:17	RLD	EPA 8260C
Isopropylbenzene	<0.040	ug/L	0.040	0.12	1	U		05/16/2017 19:17	RLD	EPA 8260C
m & p-Xylene	<0.070	ug/L	0.070	0.23	1	U		05/16/2017 19:17	RLD	EPA 8260C
Methyl tert-butyl ether	<0.040	ug/L	0.040	0.12	1	U		05/16/2017 19:17	RLD	EPA 8260C
Methylene chloride	<0.050	ug/L	0.050	0.16	1	U		05/16/2017 19:17	RLD	EPA 8260C
n-Butylbenzene	<0.030	ug/L	0.030	0.11	1	U		05/16/2017 19:17	RLD	EPA 8260C
n-Propylbenzene	<0.040	ug/L	0.040	0.13	1	U		05/16/2017 19:17	RLD	EPA 8260C
Naphthalene	<0.030	ug/L	0.030	0.10	1	U		05/16/2017 19:17	RLD	EPA 8260C
o-Xylene	<0.040	ug/L	0.040	0.14	1	U		05/16/2017 19:17	RLD	EPA 8260C
p-Isopropyltoluene	<0.040	ug/L	0.040	0.13	1	U		05/16/2017 19:17	RLD	EPA 8260C
sec-Butylbenzene	<0.050	ug/L	0.050	0.16	1	U		05/16/2017 19:17	RLD	EPA 8260C
Styrene	<0.030	ug/L	0.030	0.11	1	U		05/16/2017 19:17	RLD	EPA 8260C
tert-Butylbenzene	<0.040	ug/L	0.040	0.14	1	U		05/16/2017 19:17	RLD	EPA 8260C
Tetrachloroethene	<0.050	ug/L	0.050	0.18	1	U		05/16/2017 19:17	RLD	EPA 8260C
Tetrahydrofuran	<0.40	ug/L	0.40	1.5	1	U		05/16/2017 19:17	RLD	EPA 8260C
Toluene	<0.040	ug/L	0.040	0.13	1	U		05/16/2017 19:17	RLD	EPA 8260C
trans-1,2-Dichloroethene	<0.040	ug/L	0.040	0.14	1	U		05/16/2017 19:17	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.019	ug/L	0.019	0.063	1	U		05/16/2017 19:17	RLD	EPA 8260C
Trichloroethene	<0.050	ug/L	0.050	0.17	1	U		05/16/2017 19:17	RLD	EPA 8260C
Trichlorofluoromethane	<0.090	ug/L	0.090	0.14	1	U		05/16/2017 19:17	RLD	EPA 8260C
Vinyl acetate	<0.22	ug/L	0.22	0.73	1	U		05/16/2017 19:17	RLD	EPA 8260C
Vinyl chloride	<0.019	ug/L	0.019	0.064	1	U		05/16/2017 19:17	RLD	EPA 8260C

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Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
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Maryland Lab ID# WI00061
ISO/IEC 17025-2005 A2LA Cert # 3806.01
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID ACC20160002
Pennsylvania NELAP Lab ID# 68-04201, # 008

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase: OCONOMOWOC, WI
 Project #: 117-7413001.01
 Folder #: 127236
 Purchase Order #:
 Contract #: 2747

Page 1 of 2
 Arrival Temperature: 3.4
 Report Date: 05/26/2017
 Date Received: 05/10/2017
 Reprint Date: 05/26/2017

CT LAB#: 865587	Sample Description: MW-12B	DNR License/Well #: 4189/022	Sampled: 05/09/2017 1335
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Metals Results										
Dissolved Iron	0.226	mg/L	0.059	0.20	1			05/10/2017 23:55	NAH	EPA 6010C
Dissolved Manganese	<2.2	ug/L	2.2	7.3	1	U		05/10/2017 23:55	NAH	EPA 6010C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

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Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
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X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications
Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
Louisiana NELAP (primary) ID# ACC20160002
Illinois NELAP Lab ID# 200073
Kansas NELAP Lab ID# E-10368
Virginia NELAP Lab ID# 460203
Maryland Lab ID# WI00061
ISO/IEC 17025-2005 A2LA Cert # 3806.01
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID ACC20160002
Pennsylvania NELAP Lab ID# 68-04201, # 008

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase: OCONOMOWOC, WI
 Project #: 117-7413001.01
 Folder #: 127236
 Purchase Order #:
 Contract #: 2747

Page 1 of 5
 Arrival Temperature: 3.4
 Report Date: 05/26/2017
 Date Received: 05/10/2017
 Reprint Date: 05/26/2017

CT LAB#: 865588	Sample Description: MW-13D	DNR License/Well #: 4189/032	Sampled: 05/09/2017 1435
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Field Results										
Dissolved Oxygen (Field)	0.65	mg/L	N/A	N/A	1			05/24/2017 00:00	BMS	
OX/REDOX (Field)	-37	MV	N/A	N/A	1			05/24/2017 00:00	BMS	
Color (Field)	LT ORANGE		N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Conductivity (Field)	1370	umhos/cm	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Groundwater Elevation (Field)	845.82	Feet MSL	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
pH (Field)	7.55	S.U.	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Temperature (Field)	9.83	Deg. C	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Turbidity (Field)	YES		N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Inorganic Results										
Alkalinity Total	390	mg/L	10	34	1			05/22/2017 11:01	SAW	EPA 310.2
Total Chloride	170	mg/L	3.5	12	5			05/12/2017 06:34	AGK	EPA 9056A
Total Sulfate	45	mg/L	1.0	3.2	1			05/12/2017 06:13	AGK	EPA 9056A
Total Organic Carbon	2.1	mg/L	0.50	1.7	1			05/17/2017 22:34	AGK	EPA 9060A
Metals Results										
Total Iron	12.8	mg/L	0.034	0.11	1		05/11/2017 15:00	05/12/2017 20:14	NAH	EPA 6010C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

The groundwater elevation listed above is from the May 2016 sampling round and therefore incorrect for this round.

CT LAB#: 865588 Sample Description: MW-13D

DNR License/Well #: 4189/032

Sampled: 05/09/2017 1435

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Total Manganese	28.1	ug/L	3.4	11	1		05/11/2017 15:00	05/12/2017 20:14	NAH	EPA 6010C
Organic Results										
Acetylene	<0.23	ug/L	0.23	0.77	1	U	05/18/2017 10:45	05/22/2017 12:24	AGK	Mod RSK 175
Ethane	<0.40	ug/L	0.40	1.2	1	U	05/18/2017 10:45	05/22/2017 12:24	AGK	Mod RSK 175
Ethene	<0.50	ug/L	0.50	1.8	1	U	05/18/2017 10:45	05/22/2017 12:24	AGK	Mod RSK 175
Methane	7.1	ug/L	0.40	1.2	1		05/18/2017 10:45	05/22/2017 12:24	AGK	Mod RSK 175
1,1,1,2-Tetrachloroethane	<0.040	ug/L	0.040	0.13	1	U		05/16/2017 19:46	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.050	ug/L	0.050	0.17	1	U		05/16/2017 19:46	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.017	ug/L	0.017	0.057	1	U		05/16/2017 19:46	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.050	ug/L	0.050	0.16	1	U		05/16/2017 19:46	RLD	EPA 8260C
1,1-Dichloroethane	<0.060	ug/L	0.060	0.19	1	U		05/16/2017 19:46	RLD	EPA 8260C
1,1-Dichloroethene	<0.060	ug/L	0.060	0.20	1	U		05/16/2017 19:46	RLD	EPA 8260C
1,1-Dichloropropene	<0.060	ug/L	0.060	0.19	1	U		05/16/2017 19:46	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/16/2017 19:46	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.040	ug/L	0.040	0.14	1	U		05/16/2017 19:46	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.040	ug/L	0.040	0.12	1	U		05/16/2017 19:46	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.040	ug/L	0.040	0.12	1	U		05/16/2017 19:46	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.090	ug/L	0.090	0.29	1	U		05/16/2017 19:46	RLD	EPA 8260C
1,2-Dibromoethane	<0.070	ug/L	0.070	0.23	1	U		05/16/2017 19:46	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/16/2017 19:46	RLD	EPA 8260C
1,2-Dichloroethane	<0.050	ug/L	0.050	0.18	1	U		05/16/2017 19:46	RLD	EPA 8260C
1,2-Dichloropropane	<0.070	ug/L	0.070	0.23	1	U		05/16/2017 19:46	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<0.050	ug/L	0.050	0.16	1	U		05/16/2017 19:46	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/16/2017 19:46	RLD	EPA 8260C
1,3-Dichloropropane	<0.040	ug/L	0.040	0.13	1	U		05/16/2017 19:46	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 865588 Sample Description: MW-13D

DNR License/Well #: 4189/032

Sampled: 05/09/2017 1435

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,4-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/16/2017 19:46	RLD	EPA 8260C
1,4-Dioxane	<7.0	ug/L	7.0	23	1	U		05/16/2017 19:46	RLD	EPA 8260C
2,2-Dichloropropane	<0.050	ug/L	0.050	0.15	1	U		05/16/2017 19:46	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.5	1	U		05/16/2017 19:46	RLD	EPA 8260C
2-Chlorotoluene	<0.030	ug/L	0.030	0.11	1	U		05/16/2017 19:46	RLD	EPA 8260C
2-Hexanone	<0.24	ug/L	0.24	0.81	1	U		05/16/2017 19:46	RLD	EPA 8260C
4-Chlorotoluene	<0.040	ug/L	0.040	0.12	1	U		05/16/2017 19:46	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.24	ug/L	0.24	0.82	1	U		05/16/2017 19:46	RLD	EPA 8260C
Acetone	0.46	ug/L	0.30	1.0	1	J B		05/16/2017 19:46	RLD	EPA 8260C
Benzene	<0.018	ug/L	0.018	0.059	1	U		05/16/2017 19:46	RLD	EPA 8260C
Bromobenzene	<0.040	ug/L	0.040	0.15	1	U		05/16/2017 19:46	RLD	EPA 8260C
Bromochloromethane	<0.030	ug/L	0.030	0.099	1	U		05/16/2017 19:46	RLD	EPA 8260C
Bromodichloromethane	<0.016	ug/L	0.016	0.054	1	U		05/16/2017 19:46	RLD	EPA 8260C
Bromoform	<0.040	ug/L	0.040	0.12	1	U		05/16/2017 19:46	RLD	EPA 8260C
Bromomethane	<0.080	ug/L	0.080	0.28	1	U		05/16/2017 19:46	RLD	EPA 8260C
Carbon disulfide	<0.070	ug/L	0.070	0.25	1	U		05/16/2017 19:46	RLD	EPA 8260C
Carbon tetrachloride	<0.050	ug/L	0.050	0.18	1	U		05/16/2017 19:46	RLD	EPA 8260C
Chlorobenzene	<0.040	ug/L	0.040	0.15	1	U		05/16/2017 19:46	RLD	EPA 8260C
Chloroethane	<0.070	ug/L	0.070	0.23	1	U		05/16/2017 19:46	RLD	EPA 8260C
Chloroform	<0.030	ug/L	0.030	0.11	1	U		05/16/2017 19:46	RLD	EPA 8260C
Chloromethane	0.099	ug/L	0.040	0.13	1	J B		05/16/2017 19:46	RLD	EPA 8260C
cis-1,2-Dichloroethene	2.0	ug/L	0.070	0.23	1			05/16/2017 19:46	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.011	ug/L	0.011	0.038	1	U		05/16/2017 19:46	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1	U		05/16/2017 19:46	RLD	EPA 8260C
Dibromomethane	<0.050	ug/L	0.050	0.17	1	U		05/16/2017 19:46	RLD	EPA 8260C
Dichlorodifluoromethane	<0.060	ug/L	0.060	0.19	1	U		05/16/2017 19:46	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 865588 Sample Description: MW-13D

DNR License/Well #: 4189/032

Sampled: 05/09/2017 1435

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Diisopropyl ether	<0.040	ug/L	0.040	0.14	1	U	05/16/2017 19:46	05/16/2017 19:46	RLD	EPA 8260C
Ethylbenzene	<0.040	ug/L	0.040	0.15	1	U	05/16/2017 19:46	05/16/2017 19:46	RLD	EPA 8260C
Hexachlorobutadiene	<0.050	ug/L	0.050	0.16	1	U	05/16/2017 19:46	05/16/2017 19:46	RLD	EPA 8260C
Isopropylbenzene	<0.040	ug/L	0.040	0.12	1	U	05/16/2017 19:46	05/16/2017 19:46	RLD	EPA 8260C
m & p-Xylene	<0.070	ug/L	0.070	0.23	1	U	05/16/2017 19:46	05/16/2017 19:46	RLD	EPA 8260C
Methyl tert-butyl ether	0.57	ug/L	0.040	0.12	1		05/16/2017 19:46	05/16/2017 19:46	RLD	EPA 8260C
Methylene chloride	<0.050	ug/L	0.050	0.16	1	U	05/16/2017 19:46	05/16/2017 19:46	RLD	EPA 8260C
n-Butylbenzene	<0.030	ug/L	0.030	0.11	1	U	05/16/2017 19:46	05/16/2017 19:46	RLD	EPA 8260C
n-Propylbenzene	<0.040	ug/L	0.040	0.13	1	U	05/16/2017 19:46	05/16/2017 19:46	RLD	EPA 8260C
Naphthalene	<0.030	ug/L	0.030	0.10	1	U	05/16/2017 19:46	05/16/2017 19:46	RLD	EPA 8260C
o-Xylene	<0.040	ug/L	0.040	0.14	1	U	05/16/2017 19:46	05/16/2017 19:46	RLD	EPA 8260C
p-Isopropyltoluene	<0.040	ug/L	0.040	0.13	1	U	05/16/2017 19:46	05/16/2017 19:46	RLD	EPA 8260C
sec-Butylbenzene	<0.050	ug/L	0.050	0.16	1	U	05/16/2017 19:46	05/16/2017 19:46	RLD	EPA 8260C
Styrene	<0.030	ug/L	0.030	0.11	1	U	05/16/2017 19:46	05/16/2017 19:46	RLD	EPA 8260C
tert-Butylbenzene	<0.040	ug/L	0.040	0.14	1	U	05/16/2017 19:46	05/16/2017 19:46	RLD	EPA 8260C
Tetrachloroethene	<0.050	ug/L	0.050	0.18	1	U	05/16/2017 19:46	05/16/2017 19:46	RLD	EPA 8260C
Tetrahydrofuran	<0.40	ug/L	0.40	1.5	1	U	05/16/2017 19:46	05/16/2017 19:46	RLD	EPA 8260C
Toluene	<0.040	ug/L	0.040	0.13	1	U	05/16/2017 19:46	05/16/2017 19:46	RLD	EPA 8260C
trans-1,2-Dichloroethene	0.068	ug/L	0.040	0.14	1	J	05/16/2017 19:46	05/16/2017 19:46	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.019	ug/L	0.019	0.063	1	U	05/16/2017 19:46	05/16/2017 19:46	RLD	EPA 8260C
Trichloroethene	<0.050	ug/L	0.050	0.17	1	U	05/16/2017 19:46	05/16/2017 19:46	RLD	EPA 8260C
Trichlorofluoromethane	<0.090	ug/L	0.090	0.14	1	U	05/16/2017 19:46	05/16/2017 19:46	RLD	EPA 8260C
Vinyl acetate	1.8	ug/L	0.22	0.73	1		05/16/2017 19:46	05/16/2017 19:46	RLD	EPA 8260C
Vinyl chloride	0.032	ug/L	0.019	0.064	1	J	05/16/2017 19:46	05/16/2017 19:46	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications

Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
Louisiana NELAP (primary) ID# ACC20160002
Illinois NELAP Lab ID# 200073
Kansas NELAP Lab ID# E-10368
Virginia NELAP Lab ID# 460203
Maryland Lab ID# WI00061
ISO/IEC 17025-2005 A2LA Cert # 3806.01
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID ACC20160002
Pennsylvania NELAP Lab ID# 68-04201, # 008

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase: OCONOMOWOC, WI
 Project #: 117-7413001.01
 Folder #: 127236
 Purchase Order #:
 Contract #: 2747

Page 1 of 2
 Arrival Temperature: 3.4
 Report Date: 05/26/2017
 Date Received: 05/10/2017
 Reprint Date: 05/26/2017

CT LAB#: 865589	Sample Description: MW-13D	DNR License/Well #: 4189/032	Sampled: 05/09/2017 1435
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Metals Results										
Dissolved Iron	0.736	mg/L	0.059	0.20	1			05/11/2017 00:02	NAH	EPA 6010C
Dissolved Manganese	<2.2	ug/L	2.2	7.3	1	U		05/11/2017 00:02	NAH	EPA 6010C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications
Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
Louisiana NELAP (primary) ID# ACC20160002
Illinois NELAP Lab ID# 200073
Kansas NELAP Lab ID# E-10368
Virginia NELAP Lab ID# 460203
Maryland Lab ID# WI00061
ISO/IEC 17025-2005 A2LA Cert # 3806.01
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID ACC20160002
Pennsylvania NELAP Lab ID# 68-04201, # 008

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase: OCONOMOWOC, WI
 Project #: 117-7413001.01
 Folder #: 127236
 Purchase Order #:
 Contract #: 2747

Page 1 of 5
 Arrival Temperature: 3.4
 Report Date: 05/26/2017
 Date Received: 05/10/2017
 Reprint Date: 05/26/2017

CT LAB#: 865590	Sample Description: MW-13S	DNR License/Well #: 4189/023	Sampled: 05/09/2017 1515
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Field Results										
Dissolved Oxygen (Field)	4.41	mg/L	N/A	N/A	1			05/24/2017 00:00	BMS	
OX/REDOX (Field)	203	MV	N/A	N/A	1			05/24/2017 00:00	BMS	
Color (Field)	CLEAR		N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Conductivity (Field)	1090	umhos/cm	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Groundwater Elevation (Field)	845.75	Feet MSL	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
pH (Field)	7.51	S.U.	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Temperature (Field)	11.62	Deg. C	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Turbidity (Field)	YES		N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Inorganic Results										
Alkalinity Total	350	mg/L	10	34	1			05/22/2017 11:05	SAW	EPA 310.2
Total Chloride	150	mg/L	3.5	12	5			05/12/2017 08:25	AGK	EPA 9056A
Total Sulfate	23	mg/L	1.0	3.2	1			05/12/2017 08:04	AGK	EPA 9056A
Total Organic Carbon	2.6	mg/L	0.50	1.7	1			05/17/2017 22:46	AGK	EPA 9060A
Metals Results										
Total Iron	9.04	mg/L	0.034	0.11	1		05/11/2017 15:00	05/12/2017 20:21	NAH	EPA 6010C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 865590 Sample Description:MW-13S

DNR License/Well #: 4189/023

Sampled: 05/09/2017 1515

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Total Manganese	36800	ug/L	3.4	11	1		05/11/2017 15:00	05/12/2017 20:21	NAH	EPA 6010C
Organic Results										
Acetylene	<0.23	ug/L	0.23	0.77	1	U	05/18/2017 10:45	05/22/2017 12:15	AGK	Mod RSK 175
Ethane	<0.40	ug/L	0.40	1.2	1	U	05/18/2017 10:45	05/22/2017 12:15	AGK	Mod RSK 175
Ethene	<0.50	ug/L	0.50	1.8	1	U	05/18/2017 10:45	05/22/2017 12:15	AGK	Mod RSK 175
Methane	<0.40	ug/L	0.40	1.2	1	U	05/18/2017 10:45	05/22/2017 12:15	AGK	Mod RSK 175
1,1,1,2-Tetrachloroethane	<0.040	ug/L	0.040	0.13	1	U		05/16/2017 20:14	RLD	EPA 8260C
1,1,1-Trichloroethane	0.051	ug/L	0.050	0.17	1	J		05/16/2017 20:14	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.017	ug/L	0.017	0.057	1	U		05/16/2017 20:14	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.050	ug/L	0.050	0.16	1	U		05/16/2017 20:14	RLD	EPA 8260C
1,1-Dichloroethane	<0.060	ug/L	0.060	0.19	1	U		05/16/2017 20:14	RLD	EPA 8260C
1,1-Dichloroethene	<0.060	ug/L	0.060	0.20	1	U		05/16/2017 20:14	RLD	EPA 8260C
1,1-Dichloropropene	<0.060	ug/L	0.060	0.19	1	U		05/16/2017 20:14	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/16/2017 20:14	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.040	ug/L	0.040	0.14	1	U		05/16/2017 20:14	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.040	ug/L	0.040	0.12	1	U		05/16/2017 20:14	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.040	ug/L	0.040	0.12	1	U		05/16/2017 20:14	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.090	ug/L	0.090	0.29	1	U		05/16/2017 20:14	RLD	EPA 8260C
1,2-Dibromoethane	<0.070	ug/L	0.070	0.23	1	U		05/16/2017 20:14	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/16/2017 20:14	RLD	EPA 8260C
1,2-Dichloroethane	<0.050	ug/L	0.050	0.18	1	U		05/16/2017 20:14	RLD	EPA 8260C
1,2-Dichloropropane	<0.070	ug/L	0.070	0.23	1	U		05/16/2017 20:14	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<0.050	ug/L	0.050	0.16	1	U		05/16/2017 20:14	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/16/2017 20:14	RLD	EPA 8260C
1,3-Dichloropropane	<0.040	ug/L	0.040	0.13	1	U		05/16/2017 20:14	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 865590 Sample Description:MW-13S

DNR License/Well #: 4189/023

Sampled: 05/09/2017 1515

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,4-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/16/2017 20:14	RLD	EPA 8260C
1,4-Dioxane	<7.0	ug/L	7.0	23	1	U		05/16/2017 20:14	RLD	EPA 8260C
2,2-Dichloropropane	<0.050	ug/L	0.050	0.15	1	U		05/16/2017 20:14	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.5	1	U		05/16/2017 20:14	RLD	EPA 8260C
2-Chlorotoluene	<0.030	ug/L	0.030	0.11	1	U		05/16/2017 20:14	RLD	EPA 8260C
2-Hexanone	<0.24	ug/L	0.24	0.81	1	U		05/16/2017 20:14	RLD	EPA 8260C
4-Chlorotoluene	<0.040	ug/L	0.040	0.12	1	U		05/16/2017 20:14	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.24	ug/L	0.24	0.82	1	U		05/16/2017 20:14	RLD	EPA 8260C
Acetone	0.52	ug/L	0.30	1.0	1	J B		05/16/2017 20:14	RLD	EPA 8260C
Benzene	<0.018	ug/L	0.018	0.059	1	U		05/16/2017 20:14	RLD	EPA 8260C
Bromobenzene	<0.040	ug/L	0.040	0.15	1	U		05/16/2017 20:14	RLD	EPA 8260C
Bromochloromethane	<0.030	ug/L	0.030	0.099	1	U		05/16/2017 20:14	RLD	EPA 8260C
Bromodichloromethane	<0.016	ug/L	0.016	0.054	1	U		05/16/2017 20:14	RLD	EPA 8260C
Bromoform	<0.040	ug/L	0.040	0.12	1	U		05/16/2017 20:14	RLD	EPA 8260C
Bromomethane	<0.080	ug/L	0.080	0.28	1	U		05/16/2017 20:14	RLD	EPA 8260C
Carbon disulfide	<0.070	ug/L	0.070	0.25	1	U		05/16/2017 20:14	RLD	EPA 8260C
Carbon tetrachloride	<0.050	ug/L	0.050	0.18	1	U		05/16/2017 20:14	RLD	EPA 8260C
Chlorobenzene	<0.040	ug/L	0.040	0.15	1	U		05/16/2017 20:14	RLD	EPA 8260C
Chloroethane	<0.070	ug/L	0.070	0.23	1	U		05/16/2017 20:14	RLD	EPA 8260C
Chloroform	<0.030	ug/L	0.030	0.11	1	U		05/16/2017 20:14	RLD	EPA 8260C
Chloromethane	0.14	ug/L	0.040	0.13	1	B		05/16/2017 20:14	RLD	EPA 8260C
cis-1,2-Dichloroethene	1.0	ug/L	0.070	0.23	1			05/16/2017 20:14	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.011	ug/L	0.011	0.038	1	U		05/16/2017 20:14	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1	U		05/16/2017 20:14	RLD	EPA 8260C
Dibromomethane	<0.050	ug/L	0.050	0.17	1	U		05/16/2017 20:14	RLD	EPA 8260C
Dichlorodifluoromethane	<0.060	ug/L	0.060	0.19	1	U		05/16/2017 20:14	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 865590 Sample Description:MW-13S

DNR License/Well #: 4189/023

Sampled: 05/09/2017 1515

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Diisopropyl ether	<0.040	ug/L	0.040	0.14	1	U	05/16/2017 20:14	20:14	RLD	EPA 8260C
Ethylbenzene	<0.040	ug/L	0.040	0.15	1	U	05/16/2017 20:14	20:14	RLD	EPA 8260C
Hexachlorobutadiene	<0.050	ug/L	0.050	0.16	1	U	05/16/2017 20:14	20:14	RLD	EPA 8260C
Isopropylbenzene	<0.040	ug/L	0.040	0.12	1	U	05/16/2017 20:14	20:14	RLD	EPA 8260C
m & p-Xylene	<0.070	ug/L	0.070	0.23	1	U	05/16/2017 20:14	20:14	RLD	EPA 8260C
Methyl tert-butyl ether	<0.040	ug/L	0.040	0.12	1	U	05/16/2017 20:14	20:14	RLD	EPA 8260C
Methylene chloride	<0.050	ug/L	0.050	0.16	1	U	05/16/2017 20:14	20:14	RLD	EPA 8260C
n-Butylbenzene	<0.030	ug/L	0.030	0.11	1	U	05/16/2017 20:14	20:14	RLD	EPA 8260C
n-Propylbenzene	<0.040	ug/L	0.040	0.13	1	U	05/16/2017 20:14	20:14	RLD	EPA 8260C
Naphthalene	<0.030	ug/L	0.030	0.10	1	U	05/16/2017 20:14	20:14	RLD	EPA 8260C
o-Xylene	<0.040	ug/L	0.040	0.14	1	U	05/16/2017 20:14	20:14	RLD	EPA 8260C
p-Isopropyltoluene	<0.040	ug/L	0.040	0.13	1	U	05/16/2017 20:14	20:14	RLD	EPA 8260C
sec-Butylbenzene	<0.050	ug/L	0.050	0.16	1	U	05/16/2017 20:14	20:14	RLD	EPA 8260C
Styrene	<0.030	ug/L	0.030	0.11	1	U	05/16/2017 20:14	20:14	RLD	EPA 8260C
tert-Butylbenzene	<0.040	ug/L	0.040	0.14	1	U	05/16/2017 20:14	20:14	RLD	EPA 8260C
Tetrachloroethene	0.054	ug/L	0.050	0.18	1	J	05/16/2017 20:14	20:14	RLD	EPA 8260C
Tetrahydrofuran	<0.40	ug/L	0.40	1.5	1	U	05/16/2017 20:14	20:14	RLD	EPA 8260C
Toluene	<0.040	ug/L	0.040	0.13	1	U	05/16/2017 20:14	20:14	RLD	EPA 8260C
trans-1,2-Dichloroethene	<0.040	ug/L	0.040	0.14	1	U	05/16/2017 20:14	20:14	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.019	ug/L	0.019	0.063	1	U	05/16/2017 20:14	20:14	RLD	EPA 8260C
Trichloroethene	<0.050	ug/L	0.050	0.17	1	U	05/16/2017 20:14	20:14	RLD	EPA 8260C
Trichlorofluoromethane	<0.090	ug/L	0.090	0.14	1	U	05/16/2017 20:14	20:14	RLD	EPA 8260C
Vinyl acetate	<0.22	ug/L	0.22	0.73	1	U	05/16/2017 20:14	20:14	RLD	EPA 8260C
Vinyl chloride	<0.019	ug/L	0.019	0.064	1	U	05/16/2017 20:14	20:14	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications
Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
Louisiana NELAP (primary) ID# ACC20160002
Illinois NELAP Lab ID# 200073
Kansas NELAP Lab ID# E-10368
Virginia NELAP Lab ID# 460203
Maryland Lab ID# WI00061
ISO/IEC 17025-2005 A2LA Cert # 3806.01
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID ACC20160002
Pennsylvania NELAP Lab ID# 68-04201, # 008

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase: OCONOMOWOC, WI
 Project #: 117-7413001.01
 Folder #: 127236
 Purchase Order #:
 Contract #: 2747

Page 1 of 2
 Arrival Temperature: 3.4
 Report Date: 05/26/2017
 Date Received: 05/10/2017
 Reprint Date: 05/26/2017

CT LAB#: 865591	Sample Description: MW-13S	DNR License/Well #: 4189/023	Sampled: 05/09/2017 1515
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Metals Results										
Dissolved Iron	0.128	mg/L	0.059	0.20	1	J		05/11/2017 00:09	NAH	EPA 6010C
Dissolved Manganese	<2.2	ug/L	2.2	7.3	1	U		05/11/2017 00:09	NAH	EPA 6010C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications
Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
Louisiana NELAP (primary) ID# ACC20160002
Illinois NELAP Lab ID# 200073
Kansas NELAP Lab ID# E-10368
Virginia NELAP Lab ID# 460203
Maryland Lab ID# WI00061
ISO/IEC 17025-2005 A2LA Cert # 3806.01
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID ACC20160002
Pennsylvania NELAP Lab ID# 68-04201, # 008

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase: OCONOMOWOC, WI
 Project #: 117-7413001.01
 Folder #: 127236
 Purchase Order #:
 Contract #: 2747

Page 1 of 5
 Arrival Temperature: 3.4
 Report Date: 05/26/2017
 Date Received: 05/10/2017
 Reprint Date: 05/26/2017

CT LAB#: 865592	Sample Description: TW-2021	DNR License/Well #: 4189/048	Sampled: 05/09/2017 1550
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Field Results										
Dissolved Oxygen (Field)	0.34	mg/L	N/A	N/A	1			05/24/2017 00:00	BMS	
OX/REDOX (Field)	45	MV	N/A	N/A	1			05/24/2017 00:00	BMS	
Color (Field)	CLEAR		N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Conductivity (Field)	1520	umhos/cm	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Groundwater Elevation (Field)	846.31	Feet MSL	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
pH (Field)	7.34	S.U.	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Temperature (Field)	10.07	Deg. C	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Turbidity (Field)	NO		N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Inorganic Results										
Alkalinity Total	390	mg/L	10	34	1			05/22/2017 11:06	SAW	EPA 310.2
Total Chloride	210	mg/L	4.2	14	6			05/12/2017 09:13	AGK	EPA 9056A
Total Sulfate	38	mg/L	1.0	3.2	1			05/12/2017 08:52	AGK	EPA 9056A
Total Organic Carbon	3.5	mg/L	0.50	1.7	1			05/17/2017 22:57	AGK	EPA 9060A
Metals Results										
Total Iron	0.144	mg/L	0.034	0.11	1		05/11/2017 15:00	05/12/2017 20:28	NAH	EPA 6010C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 865592 Sample Description: TW-2021

DNR License/Well #: 4189/048

Sampled: 05/09/2017 1550

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Total Manganese	371	ug/L	3.4	11	1		05/11/2017 15:00	05/12/2017 20:28	NAH	EPA 6010C
Organic Results										
Acetylene	<0.23	ug/L	0.23	0.77	1	U	05/18/2017 10:45	05/22/2017 12:05	AGK	Mod RSK 175
Ethane	<0.40	ug/L	0.40	1.2	1	U	05/18/2017 10:45	05/22/2017 12:05	AGK	Mod RSK 175
Ethene	<0.50	ug/L	0.50	1.8	1	U	05/18/2017 10:45	05/22/2017 12:05	AGK	Mod RSK 175
Methane	0.40	ug/L	0.40	1.2	1	J	05/18/2017 10:45	05/22/2017 12:05	AGK	Mod RSK 175
1,1,1,2-Tetrachloroethane	<0.040	ug/L	0.040	0.13	1	U		05/16/2017 20:42	RLD	EPA 8260C
1,1,1-Trichloroethane	0.22	ug/L	0.050	0.17	1			05/16/2017 20:42	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.017	ug/L	0.017	0.057	1	U		05/16/2017 20:42	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.050	ug/L	0.050	0.16	1	U		05/16/2017 20:42	RLD	EPA 8260C
1,1-Dichloroethane	0.15	ug/L	0.060	0.19	1	J		05/16/2017 20:42	RLD	EPA 8260C
1,1-Dichloroethene	0.086	ug/L	0.060	0.20	1	J		05/16/2017 20:42	RLD	EPA 8260C
1,1-Dichloropropene	<0.060	ug/L	0.060	0.19	1	U		05/16/2017 20:42	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/16/2017 20:42	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.040	ug/L	0.040	0.14	1	U		05/16/2017 20:42	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.040	ug/L	0.040	0.12	1	U		05/16/2017 20:42	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.040	ug/L	0.040	0.12	1	U		05/16/2017 20:42	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.090	ug/L	0.090	0.29	1	U		05/16/2017 20:42	RLD	EPA 8260C
1,2-Dibromoethane	<0.070	ug/L	0.070	0.23	1	U		05/16/2017 20:42	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/16/2017 20:42	RLD	EPA 8260C
1,2-Dichloroethane	<0.050	ug/L	0.050	0.18	1	U		05/16/2017 20:42	RLD	EPA 8260C
1,2-Dichloropropane	<0.070	ug/L	0.070	0.23	1	U		05/16/2017 20:42	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<0.050	ug/L	0.050	0.16	1	U		05/16/2017 20:42	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/16/2017 20:42	RLD	EPA 8260C
1,3-Dichloropropane	<0.040	ug/L	0.040	0.13	1	U		05/16/2017 20:42	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 865592 Sample Description: TW-2021

DNR License/Well #: 4189/048

Sampled: 05/09/2017 1550

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,4-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/16/2017 20:42	RLD	EPA 8260C
1,4-Dioxane	<7.0	ug/L	7.0	23	1	U		05/16/2017 20:42	RLD	EPA 8260C
2,2-Dichloropropane	<0.050	ug/L	0.050	0.15	1	U		05/16/2017 20:42	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.5	1	U		05/16/2017 20:42	RLD	EPA 8260C
2-Chlorotoluene	<0.030	ug/L	0.030	0.11	1	U		05/16/2017 20:42	RLD	EPA 8260C
2-Hexanone	<0.24	ug/L	0.24	0.81	1	U		05/16/2017 20:42	RLD	EPA 8260C
4-Chlorotoluene	<0.040	ug/L	0.040	0.12	1	U		05/16/2017 20:42	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.24	ug/L	0.24	0.82	1	U		05/16/2017 20:42	RLD	EPA 8260C
Acetone	0.47	ug/L	0.30	1.0	1	J B		05/16/2017 20:42	RLD	EPA 8260C
Benzene	0.023	ug/L	0.018	0.059	1	J		05/16/2017 20:42	RLD	EPA 8260C
Bromobenzene	<0.040	ug/L	0.040	0.15	1	U		05/16/2017 20:42	RLD	EPA 8260C
Bromochloromethane	<0.030	ug/L	0.030	0.099	1	U		05/16/2017 20:42	RLD	EPA 8260C
Bromodichloromethane	<0.016	ug/L	0.016	0.054	1	U		05/16/2017 20:42	RLD	EPA 8260C
Bromoform	<0.040	ug/L	0.040	0.12	1	U		05/16/2017 20:42	RLD	EPA 8260C
Bromomethane	<0.080	ug/L	0.080	0.28	1	U		05/16/2017 20:42	RLD	EPA 8260C
Carbon disulfide	<0.070	ug/L	0.070	0.25	1	U		05/16/2017 20:42	RLD	EPA 8260C
Carbon tetrachloride	<0.050	ug/L	0.050	0.18	1	U		05/16/2017 20:42	RLD	EPA 8260C
Chlorobenzene	0.47	ug/L	0.040	0.15	1			05/16/2017 20:42	RLD	EPA 8260C
Chloroethane	<0.070	ug/L	0.070	0.23	1	U		05/16/2017 20:42	RLD	EPA 8260C
Chloroform	<0.030	ug/L	0.030	0.11	1	U		05/16/2017 20:42	RLD	EPA 8260C
Chloromethane	0.13	ug/L	0.040	0.13	1	B		05/16/2017 20:42	RLD	EPA 8260C
cis-1,2-Dichloroethene	20	ug/L	0.14	0.46	2			05/17/2017 19:15	AGK	EPA 8260C
cis-1,3-Dichloropropene	<0.011	ug/L	0.011	0.038	1	U		05/16/2017 20:42	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1	U		05/16/2017 20:42	RLD	EPA 8260C
Dibromomethane	<0.050	ug/L	0.050	0.17	1	U		05/16/2017 20:42	RLD	EPA 8260C
Dichlorodifluoromethane	<0.060	ug/L	0.060	0.19	1	U		05/16/2017 20:42	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 865592 Sample Description: TW-2021

DNR License/Well #: 4189/048

Sampled: 05/09/2017 1550

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Diisopropyl ether	<0.040	ug/L	0.040	0.14	1	U	05/16/2017 20:42	05/16/2017 20:42	RLD	EPA 8260C
Ethylbenzene	<0.040	ug/L	0.040	0.15	1	U	05/16/2017 20:42	05/16/2017 20:42	RLD	EPA 8260C
Hexachlorobutadiene	<0.050	ug/L	0.050	0.16	1	U	05/16/2017 20:42	05/16/2017 20:42	RLD	EPA 8260C
Isopropylbenzene	<0.040	ug/L	0.040	0.12	1	U	05/16/2017 20:42	05/16/2017 20:42	RLD	EPA 8260C
m & p-Xylene	<0.070	ug/L	0.070	0.23	1	U	05/16/2017 20:42	05/16/2017 20:42	RLD	EPA 8260C
Methyl tert-butyl ether	<0.040	ug/L	0.040	0.12	1	U	05/16/2017 20:42	05/16/2017 20:42	RLD	EPA 8260C
Methylene chloride	<0.050	ug/L	0.050	0.16	1	U	05/16/2017 20:42	05/16/2017 20:42	RLD	EPA 8260C
n-Butylbenzene	<0.030	ug/L	0.030	0.11	1	U	05/16/2017 20:42	05/16/2017 20:42	RLD	EPA 8260C
n-Propylbenzene	<0.040	ug/L	0.040	0.13	1	U	05/16/2017 20:42	05/16/2017 20:42	RLD	EPA 8260C
Naphthalene	<0.030	ug/L	0.030	0.10	1	U	05/16/2017 20:42	05/16/2017 20:42	RLD	EPA 8260C
o-Xylene	<0.040	ug/L	0.040	0.14	1	U	05/16/2017 20:42	05/16/2017 20:42	RLD	EPA 8260C
p-Isopropyltoluene	<0.040	ug/L	0.040	0.13	1	U	05/16/2017 20:42	05/16/2017 20:42	RLD	EPA 8260C
sec-Butylbenzene	<0.050	ug/L	0.050	0.16	1	U	05/16/2017 20:42	05/16/2017 20:42	RLD	EPA 8260C
Styrene	<0.030	ug/L	0.030	0.11	1	U	05/16/2017 20:42	05/16/2017 20:42	RLD	EPA 8260C
tert-Butylbenzene	<0.040	ug/L	0.040	0.14	1	U	05/16/2017 20:42	05/16/2017 20:42	RLD	EPA 8260C
Tetrachloroethene	<0.050	ug/L	0.050	0.18	1	U	05/16/2017 20:42	05/16/2017 20:42	RLD	EPA 8260C
Tetrahydrofuran	<0.40	ug/L	0.40	1.5	1	U	05/16/2017 20:42	05/16/2017 20:42	RLD	EPA 8260C
Toluene	<0.040	ug/L	0.040	0.13	1	U	05/16/2017 20:42	05/16/2017 20:42	RLD	EPA 8260C
trans-1,2-Dichloroethene	0.97	ug/L	0.040	0.14	1		05/16/2017 20:42	05/16/2017 20:42	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.019	ug/L	0.019	0.063	1	U	05/16/2017 20:42	05/16/2017 20:42	RLD	EPA 8260C
Trichloroethene	12	ug/L	0.050	0.17	1		05/16/2017 20:42	05/16/2017 20:42	RLD	EPA 8260C
Trichlorofluoromethane	<0.090	ug/L	0.090	0.14	1	U	05/16/2017 20:42	05/16/2017 20:42	RLD	EPA 8260C
Vinyl acetate	<0.22	ug/L	0.22	0.73	1	U	05/16/2017 20:42	05/16/2017 20:42	RLD	EPA 8260C
Vinyl chloride	<0.019	ug/L	0.019	0.064	1	U	05/16/2017 20:42	05/16/2017 20:42	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications

Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
Louisiana NELAP (primary) ID# ACC20160002
Illinois NELAP Lab ID# 200073
Kansas NELAP Lab ID# E-10368
Virginia NELAP Lab ID# 460203
Maryland Lab ID# WI00061
ISO/IEC 17025-2005 A2LA Cert # 3806.01
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID ACC20160002
Pennsylvania NELAP Lab ID# 68-04201, # 008

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase: OCONOMOWOC, WI
 Project #: 117-7413001.01
 Folder #: 127236
 Purchase Order #:
 Contract #: 2747

Page 1 of 2
 Arrival Temperature: 3.4
 Report Date: 05/26/2017
 Date Received: 05/10/2017
 Reprint Date: 05/26/2017

CT LAB#: 865593	Sample Description: TW-2021	DNR License/Well #: 4189/048	Sampled: 05/09/2017 1550
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Metals Results										
Dissolved Iron	0.107	mg/L	0.059	0.20	1	J		05/11/2017 00:16	NAH	EPA 6010C
Dissolved Manganese	328	ug/L	2.2	7.3	1			05/11/2017 00:16	NAH	EPA 6010C

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Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

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Illinois NELAP Lab ID# 200073
Kansas NELAP Lab ID# E-10368
Virginia NELAP Lab ID# 460203
Maryland Lab ID# WI00061
ISO/IEC 17025-2005 A2LA Cert # 3806.01
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID ACC20160002
Pennsylvania NELAP Lab ID# 68-04201, # 008

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase: OCONOMOWOC, WI
 Project #: 117-7413001.01
 Folder #: 127236
 Purchase Order #:
 Contract #: 2747

Page 1 of 5
 Arrival Temperature: 3.4
 Report Date: 05/26/2017
 Date Received: 05/10/2017
 Reprint Date: 05/26/2017

CT LAB#: 865594	Sample Description: TB-1	DNR License/Well #: 4189/999	Sampled: 05/09/2017
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Organic Results										
1,1,1,2-Tetrachloroethane	<0.040	ug/L	0.040	0.13	1	U	05/16/2017 17:53	RLD	EPA 8260C	
1,1,1-Trichloroethane	<0.050	ug/L	0.050	0.17	1	U	05/16/2017 17:53	RLD	EPA 8260C	
1,1,2,2-Tetrachloroethane	<0.017	ug/L	0.017	0.057	1	U	05/16/2017 17:53	RLD	EPA 8260C	
1,1,2-Trichloroethane	<0.050	ug/L	0.050	0.16	1	U	05/16/2017 17:53	RLD	EPA 8260C	
1,1-Dichloroethane	<0.060	ug/L	0.060	0.19	1	U	05/16/2017 17:53	RLD	EPA 8260C	
1,1-Dichloroethene	<0.060	ug/L	0.060	0.20	1	U	05/16/2017 17:53	RLD	EPA 8260C	
1,1-Dichloropropene	<0.060	ug/L	0.060	0.19	1	U	05/16/2017 17:53	RLD	EPA 8260C	
1,2,3-Trichlorobenzene	<0.040	ug/L	0.040	0.13	1	U	05/16/2017 17:53	RLD	EPA 8260C	
1,2,3-Trichloropropane	<0.040	ug/L	0.040	0.14	1	U	05/16/2017 17:53	RLD	EPA 8260C	
1,2,4-Trichlorobenzene	<0.040	ug/L	0.040	0.12	1	U	05/16/2017 17:53	RLD	EPA 8260C	
1,2,4-Trimethylbenzene	<0.040	ug/L	0.040	0.12	1	U	05/16/2017 17:53	RLD	EPA 8260C	
1,2-Dibromo-3-chloropropane	<0.090	ug/L	0.090	0.29	1	U	05/16/2017 17:53	RLD	EPA 8260C	
1,2-Dibromoethane	<0.070	ug/L	0.070	0.23	1	U	05/16/2017 17:53	RLD	EPA 8260C	
1,2-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U	05/16/2017 17:53	RLD	EPA 8260C	
1,2-Dichloroethane	<0.050	ug/L	0.050	0.18	1	U	05/16/2017 17:53	RLD	EPA 8260C	
1,2-Dichloropropane	<0.070	ug/L	0.070	0.23	1	U	05/16/2017 17:53	RLD	EPA 8260C	

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 865594 Sample Description:TB-1

DNR License/Well #: 4189/999

Sampled: 05/09/2017

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,3,5-Trimethylbenzene	<0.050	ug/L	0.050	0.16	1	U		05/16/2017 17:53	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/16/2017 17:53	RLD	EPA 8260C
1,3-Dichloropropane	<0.040	ug/L	0.040	0.13	1	U		05/16/2017 17:53	RLD	EPA 8260C
1,4-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/16/2017 17:53	RLD	EPA 8260C
1,4-Dioxane	<7.0	ug/L	7.0	23	1	U		05/16/2017 17:53	RLD	EPA 8260C
2,2-Dichloropropane	<0.050	ug/L	0.050	0.15	1	U		05/16/2017 17:53	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.5	1	U		05/16/2017 17:53	RLD	EPA 8260C
2-Chlorotoluene	<0.030	ug/L	0.030	0.11	1	U		05/16/2017 17:53	RLD	EPA 8260C
2-Hexanone	<0.24	ug/L	0.24	0.81	1	U		05/16/2017 17:53	RLD	EPA 8260C
4-Chlorotoluene	<0.040	ug/L	0.040	0.12	1	U		05/16/2017 17:53	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.24	ug/L	0.24	0.82	1	U		05/16/2017 17:53	RLD	EPA 8260C
Acetone	0.98	ug/L	0.30	1.0	1	J B		05/16/2017 17:53	RLD	EPA 8260C
Benzene	<0.018	ug/L	0.018	0.059	1	U		05/16/2017 17:53	RLD	EPA 8260C
Bromobenzene	<0.040	ug/L	0.040	0.15	1	U		05/16/2017 17:53	RLD	EPA 8260C
Bromochloromethane	<0.030	ug/L	0.030	0.099	1	U		05/16/2017 17:53	RLD	EPA 8260C
Bromodichloromethane	<0.016	ug/L	0.016	0.054	1	U		05/16/2017 17:53	RLD	EPA 8260C
Bromoform	<0.040	ug/L	0.040	0.12	1	U		05/16/2017 17:53	RLD	EPA 8260C
Bromomethane	<0.080	ug/L	0.080	0.28	1	U		05/16/2017 17:53	RLD	EPA 8260C
Carbon disulfide	<0.070	ug/L	0.070	0.25	1	U		05/16/2017 17:53	RLD	EPA 8260C
Carbon tetrachloride	<0.050	ug/L	0.050	0.18	1	U		05/16/2017 17:53	RLD	EPA 8260C
Chlorobenzene	<0.040	ug/L	0.040	0.15	1	U		05/16/2017 17:53	RLD	EPA 8260C
Chloroethane	<0.070	ug/L	0.070	0.23	1	U		05/16/2017 17:53	RLD	EPA 8260C
Chloroform	<0.030	ug/L	0.030	0.11	1	U		05/16/2017 17:53	RLD	EPA 8260C
Chloromethane	0.047	ug/L	0.040	0.13	1	J B		05/16/2017 17:53	RLD	EPA 8260C
cis-1,2-Dichloroethene	<0.070	ug/L	0.070	0.23	1	U		05/16/2017 17:53	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.011	ug/L	0.011	0.038	1	U		05/16/2017 17:53	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 865594 Sample Description:TB-1

DNR License/Well #: 4189/999

Sampled: 05/09/2017

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1	U		05/16/2017 17:53	RLD	EPA 8260C
Dibromomethane	<0.050	ug/L	0.050	0.17	1	U		05/16/2017 17:53	RLD	EPA 8260C
Dichlorodifluoromethane	<0.060	ug/L	0.060	0.19	1	U		05/16/2017 17:53	RLD	EPA 8260C
Diisopropyl ether	<0.040	ug/L	0.040	0.14	1	U		05/16/2017 17:53	RLD	EPA 8260C
Ethylbenzene	<0.040	ug/L	0.040	0.15	1	U		05/16/2017 17:53	RLD	EPA 8260C
Hexachlorobutadiene	<0.050	ug/L	0.050	0.16	1	U		05/16/2017 17:53	RLD	EPA 8260C
Isopropylbenzene	<0.040	ug/L	0.040	0.12	1	U		05/16/2017 17:53	RLD	EPA 8260C
m & p-Xylene	<0.070	ug/L	0.070	0.23	1	U		05/16/2017 17:53	RLD	EPA 8260C
Methyl tert-butyl ether	<0.040	ug/L	0.040	0.12	1	U		05/16/2017 17:53	RLD	EPA 8260C
Methylene chloride	<0.050	ug/L	0.050	0.16	1	U		05/16/2017 17:53	RLD	EPA 8260C
n-Butylbenzene	<0.030	ug/L	0.030	0.11	1	U		05/16/2017 17:53	RLD	EPA 8260C
n-Propylbenzene	<0.040	ug/L	0.040	0.13	1	U		05/16/2017 17:53	RLD	EPA 8260C
Naphthalene	<0.030	ug/L	0.030	0.10	1	U		05/16/2017 17:53	RLD	EPA 8260C
o-Xylene	<0.040	ug/L	0.040	0.14	1	U		05/16/2017 17:53	RLD	EPA 8260C
p-Isopropyltoluene	<0.040	ug/L	0.040	0.13	1	U		05/16/2017 17:53	RLD	EPA 8260C
sec-Butylbenzene	<0.050	ug/L	0.050	0.16	1	U		05/16/2017 17:53	RLD	EPA 8260C
Styrene	<0.030	ug/L	0.030	0.11	1	U		05/16/2017 17:53	RLD	EPA 8260C
tert-Butylbenzene	<0.040	ug/L	0.040	0.14	1	U		05/16/2017 17:53	RLD	EPA 8260C
Tetrachloroethene	<0.050	ug/L	0.050	0.18	1	U		05/16/2017 17:53	RLD	EPA 8260C
Tetrahydrofuran	<0.40	ug/L	0.40	1.5	1	U		05/16/2017 17:53	RLD	EPA 8260C
Toluene	<0.040	ug/L	0.040	0.13	1	U		05/16/2017 17:53	RLD	EPA 8260C
trans-1,2-Dichloroethene	<0.040	ug/L	0.040	0.14	1	U		05/16/2017 17:53	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.019	ug/L	0.019	0.063	1	U		05/16/2017 17:53	RLD	EPA 8260C
Trichloroethene	<0.050	ug/L	0.050	0.17	1	U		05/16/2017 17:53	RLD	EPA 8260C
Trichlorofluoromethane	<0.090	ug/L	0.090	0.14	1	U		05/16/2017 17:53	RLD	EPA 8260C
Vinyl acetate	<0.22	ug/L	0.22	0.73	1	U		05/16/2017 17:53	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 865594 Sample Description:TB-1

DNR License/Well #: 4189/999

Sampled: 05/09/2017

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Vinyl chloride	<0.019	ug/L	0.019	0.064	1	U		05/16/2017 17:53	RLD	EPA 8260C

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Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

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Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
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L	Significant peaks were detected outside the chromatographic window.	
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N	Insufficient BOD oxygen depletion.	
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Wisconsin (DATCP) Bacteriology ID# 105-289
Louisiana NELAP (primary) ID# ACC20160002
Illinois NELAP Lab ID# 200073
Kansas NELAP Lab ID# E-10368
Virginia NELAP Lab ID# 460203
Maryland Lab ID# WI00061
ISO/IEC 17025-2005 A2LA Cert # 3806.01
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID ACC20160002
Pennsylvania NELAP Lab ID# 68-04201, # 008

QC SUMMARY REPORT

TETRA TECH

**Project Name: OCONOMOWOC
 ELECTROPLATING
 Project Number: 117-7413001.01**

SDG #: 0

Folder #: 127236

Duplicate

Analytical Run #:	137758	Analysis Date:	05/12/2017	Prep Batch #:	Matrix:	GROUND WATER
CTLab #:	867161	Analysis Time:	00:50	Prep Date/Time:	Method:	SW9056A
Parent Sample #:	865576	Analyst:	AGK	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Chloride	30.6	mg/L	31					1	20
Total Sulfate	66.8	mg/L	67					0	20

TETRA TECH

SDG #: 0

Folder #: 127236

Project Name: OCONOMOWOC
ELECTROPLATING
Project Number: 117-7413001.01

Lab Control Spike Water

Analytical Run #:	137758	Analysis Date:	05/11/2017	Prep Batch #:		Matrix:	LIQUID
CTLab #:	867164	Analysis Time:	23:26	Prep Date/Time:		Method:	SW9056A
Parent Sample #:		Analyst:	AGK	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Chloride	16.09	mg/L			15.00	107	80 --- 120		
Sulfate	26.39	mg/L			25.00	106	80 --- 120		

TETRA TECH

SDG #: 0

Folder #: 127236

Project Name: OCONOMOWOC
ELECTROPLATING
Project Number: 117-7413001.01

Method Blank Water

Analytical Run #:	137758	Analysis Date:	05/12/2017	Prep Batch #:		Matrix:	LIQUID
CTLab #:	867163	Analysis Time:	00:08	Prep Date/Time:		Method:	SW9056A
Parent Sample #:		Analyst:	AGK	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Chloride	0.7	mg/L		U	0		0.7		
Sulfate	1.0	mg/L		U	0		1.0		

TETRA TECH

SDG #: 0

Folder #: 127236

Project Name: OCONOMOWOC

ELECTROPLATING

Project Number: 117-7413001.01

Matrix Spike Water

Analytical Run #:	137758	Analysis Date:	05/12/2017	Prep Batch #:	Matrix:	GROUND WATER
CTLab #:	867167	Analysis Time:	01:10	Prep Date/Time:	Method:	SW9056A
Parent Sample #:	865576	Analyst:	AGK	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Chloride	37.4	mg/L	31		8.00	80	80 --- 120		20
Total Sulfate	71.6	mg/L	67		8.00	58	80 --- 120		20

TETRA TECH

SDG #: 0

Folder #: 127236

Project Name: OCONOMOWOC

ELECTROPLATING

Project Number: 117-7413001.01

Duplicate

Analytical Run #:	137913	Analysis Date:	05/17/2017	Prep Batch #:	Matrix:	GROUND WATER
CTLab #:	868883	Analysis Time:	20:29	Prep Date/Time:	Method:	SW9060
Parent Sample #:	865578	Analyst:	AGK	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Organic Carbon	5.29	mg/L	5.5					4	20

TETRA TECH

SDG #: 0

Folder #: 127236

Project Name: OCONOMOWOC

ELECTROPLATING

Project Number: 117-7413001.01

Lab Control Spike Water

Analytical Run #:	137913	Analysis Date:	05/17/2017	Prep Batch #:		Matrix:	LIQUID
CTLab #:	868881	Analysis Time:	18:50	Prep Date/Time:		Method:	SW9060
Parent Sample #:		Analyst:	AGK	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Organic Carbon	48.08	mg/L			50.00	96	88 --- 113		

TETRA TECH

SDG #: 0

Folder #: 127236

Project Name: OCONOMOWOC
ELECTROPLATING
Project Number: 117-7413001.01

Method Blank Water

Analytical Run #:	137913	Analysis Date:	05/17/2017	Prep Batch #:	Matrix:	LIQUID
CTLab #:	868882	Analysis Time:	19:05	Prep Date/Time:	Method:	SW9060
Parent Sample #:		Analyst:	AGK	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Organic Carbon	0.5	mg/L		U	0		0.5		

TETRA TECH

SDG #: 0

Folder #: 127236

Project Name: OCONOMOWOC
ELECTROPLATING
Project Number: 117-7413001.01

Matrix Spike Duplicate Water

Analytical Run #:	137913	Analysis Date:	05/17/2017	Prep Batch #:	Matrix:	GROUND WATER
CTLab #:	868885	Analysis Time:	20:57	Prep Date/Time:	Method:	SW9060
Parent Sample #:	868884	Analyst:	AGK	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Organic Carbon	58.7	mg/L	5.5		50.0	106	85 --- 110	1	6

TETRA TECH

SDG #: 0

Folder #: 127236

Project Name: OCONOMOWOC
ELECTROPLATING
Project Number: 117-7413001.01

Matrix Spike Water

Analytical Run #:	137913	Analysis Date:	05/17/2017	Prep Batch #:	Matrix:	GROUND WATER
CTLab #:	868884	Analysis Time:	20:42	Prep Date/Time:	Method:	SW9060
Parent Sample #:	865578	Analyst:	AGK	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Organic Carbon	58.1	mg/L	5.5		50.0	105	85 --- 110		6

TETRA TECH

SDG #: 0

Folder #: 127236

Project Name: OCONOMOWOC

ELECTROPLATING

Project Number: 117-7413001.01

Duplicate

Analytical Run #:	138141	Analysis Date:	05/22/2017	Prep Batch #:	Matrix:	GROUND WATER
CTLab #:	870689	Analysis Time:	10:58	Prep Date/Time:	Method:	E310.2
Parent Sample #:	865582	Analyst:	DC	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Alkalinity Dissolved	410	mg/L	410					0	10
Alkalinity Total	410	mg/L	410					0	7

TETRA TECH

SDG #: 0

Folder #: 127236

Project Name: OCONOMOWOC

ELECTROPLATING

Project Number: 117-7413001.01

Lab Control Spike Water

Analytical Run #:	138141	Analysis Date:	05/22/2017	Prep Batch #:		Matrix:	LIQUID
CTLab #:	870365	Analysis Time:	10:52	Prep Date/Time:		Method:	E310.2
Parent Sample #:		Analyst:	SAW	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Alkalinity	366.0	mg/L			375.0	98	90 --- 110		

TETRA TECH

SDG #: 0

Folder #: 127236

Project Name: OCONOMOWOC

ELECTROPLATING

Project Number: 117-7413001.01

Method Blank Water

Analytical Run #:	138141	Analysis Date:	05/22/2017	Prep Batch #:	Matrix:	LIQUID
CTLab #:	870366	Analysis Time:	10:53	Prep Date/Time:	Method:	E310.2
Parent Sample #:		Analyst:	SAW	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Alkalinity	10	mg/L		U	0			10	

TETRA TECH

SDG #: 0

Folder #: 127236

Project Name: OCONOMOWOC

ELECTROPLATING

Project Number: 117-7413001.01

Matrix Spike Duplicate Water

Analytical Run #:	137754	Analysis Date:	05/10/2017	Prep Batch #:	Matrix:	GROUND WATER
CTLab #:	866756	Analysis Time:	23:02	Prep Date/Time:	Method:	SW6010
Parent Sample #:	866755	Analyst:	DC	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Iron	1.84	mg/L	BDL		2.00	92	75 --- 113	5	18
Manganese	1070	ug/L	547		1000	52	75 --- 121	3	13

TETRA TECH

SDG #: 0

Folder #: 127236

Project Name: OCONOMOWOC

ELECTROPLATING

Project Number: 117-7413001.01

Matrix Spike Water

Analytical Run #:	137754	Analysis Date:	05/10/2017	Prep Batch #:		Matrix:	GROUND WATER
CTLab #:	866755	Analysis Time:	22:56	Prep Date/Time:		Method:	SW6010
Parent Sample #:	865577	Analyst:	DC	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Iron	1.93	mg/L	BDL		2.00	96	75 --- 113		18
Manganese	1100	ug/L	547		1000	55	75 --- 121		13

TETRA TECH

SDG #: 0

Folder #: 127236

Project Name: OCONOMOWOC

ELECTROPLATING

Project Number: 117-7413001.01

Lab Control Spike Water

Analytical Run #:	137799	Analysis Date:	05/12/2017	Prep Batch #:	62338	Matrix:	LIQUID
CTLab #:	865874	Analysis Time:	17:06	Prep Date/Time:	05/11/2017 15:00	Method:	SW6010
Parent Sample #:		Analyst:	NAH	Prep Analyst:	NAH		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Iron	0.4320	mg/L			0.4000	108	80 --- 115		
Manganese	205.0	ug/L			200.0	102	86 --- 112		

TETRA TECH

SDG #: 0

Folder #: 127236

Project Name: OCONOMOWOC
ELECTROPLATING
Project Number: 117-7413001.01

Method Blank Water

Analytical Run #:	137799	Analysis Date:	05/12/2017	Prep Batch #:	62338	Matrix:	LIQUID
CTLab #:	865873	Analysis Time:	17:13	Prep Date/Time:	05/11/2017 15:00	Method:	SW6010
Parent Sample #:		Analyst:	NAH	Prep Analyst:	NAH		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Iron	0.034	mg/L		U	0		0.034		
Manganese	3.4	ug/L		U	0		3.4		

TETRA TECH

SDG #: 0

Folder #: 127236

Project Name: OCONOMOWOC

ELECTROPLATING

Project Number: 117-7413001.01

Matrix Spike Duplicate Water

Analytical Run #:	137799	Analysis Date:	05/12/2017	Prep Batch #:	62338	Matrix:	GROUND WATER
CTLab #:	865876	Analysis Time:	19:08	Prep Date/Time:	05/11/2017 15:00	Method:	SW6010
Parent Sample #:	865875	Analyst:	NAH	Prep Analyst:	NAH		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Iron	0.455	mg/L	0.0721		0.400	96	75 --- 118	3	11
Manganese	581	ug/L	423		200	79	84 --- 111	3	7

TETRA TECH

SDG #: 0

Folder #: 127236

Project Name: OCONOMOWOC
ELECTROPLATING
Project Number: 117-7413001.01

Matrix Spike Water

Analytical Run #:	137799	Analysis Date:	05/12/2017	Prep Batch #:	62338	Matrix:	GROUND WATER
CTLab #:	865875	Analysis Time:	19:01	Prep Date/Time:	05/11/2017 15:00	Method:	SW6010
Parent Sample #:	865576	Analyst:	NAH	Prep Analyst:	NAH		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Iron	0.470	mg/L	0.0721		0.400	99	75 --- 118		
Manganese	597	ug/L	423		200	87	84 --- 111		

Lab Control Spike Water

Analytical Run #:	137835	Analysis Date:	05/16/2017	Prep Batch #:	Matrix:	LIQUID
CTLab #:	868450	Analysis Time:	16:00	Prep Date/Time:	Method:	SW8260C
Parent Sample #:		Analyst:	RLD	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	4.06	ug/L			4.00	102	79 --- 122		
1,1,1-Trichloroethane	4.33	ug/L			4.00	108	76 --- 129		
1,1,2,2-Tetrachloroethane	4.25	ug/L			4.00	106	79 --- 119		
1,1,2-Trichloroethane	4.07	ug/L			4.00	102	82 --- 113		
1,1-Dichloroethane	4.22	ug/L			4.00	106	80 --- 119		
1,1-Dichloroethene	4.24	ug/L			4.00	106	75 --- 131		
1,1-Dichloropropene	4.27	ug/L			4.00	107	78 --- 126		
1,2 Dichloroethane-d4	94.0	% Recovery			100	94.0	85 --- 108		
1,2,3-Trichlorobenzene	4.14	ug/L			4.00	104	79 --- 118		
1,2,3-Trichloropropane	3.93	ug/L			4.00	98	67 --- 118		
1,2,4-Trichlorobenzene	4.17	ug/L			4.00	104	82 --- 121		
1,2,4-Trimethylbenzene	4.42	ug/L			4.00	110	80 --- 124		
1,2-Dibromo-3-chloropropane	4.03	ug/L			4.00	101	71 --- 117		
1,2-Dibromoethane	4.18	ug/L			4.00	104	85 --- 115		
1,2-Dichlorobenzene	4.14	ug/L			4.00	104	80 --- 119		
1,2-Dichloroethane	4.03	ug/L			4.00	101	82 --- 113		
1,2-Dichloropropane	4.19	ug/L			4.00	105	84 --- 114		
1,3,5-Trimethylbenzene	4.34	ug/L			4.00	108	83 --- 123		
1,3-Dichlorobenzene	4.35	ug/L			4.00	109	79 --- 122		
1,3-Dichloropropane	4.03	ug/L			4.00	101	84 --- 110		
1,4-Dichlorobenzene	4.21	ug/L			4.00	105	79 --- 121		
1,4-Dioxane	161	ug/L			200	80	70 --- 130		
2,2-Dichloropropane	4.31	ug/L			4.00	108	73 --- 130		
2-Butanone	38.4	ug/L			40.0	96	73 --- 121		
2-Chlorotoluene	4.26	ug/L			4.00	106	82 --- 120		
2-Hexanone	40.0	ug/L			40.0	100	75 --- 121		
4-Chlorotoluene	4.26	ug/L			4.00	106	80 --- 124		
4-Methyl-2-pentanone	41.0	ug/L			40.0	102	73 --- 127		
Acetone	33.5	ug/L			40.0	84	57 --- 123		
Benzene	4.21	ug/L			4.00	105	81 --- 121		
Bromobenzene	4.21	ug/L			4.00	105	80 --- 119		
Bromochloromethane	4.17	ug/L			4.00	104	80 --- 113		
Bromodichloromethane	4.27	ug/L			4.00	107	80 --- 118		
Bromofluorobenzene	102	% Recovery			100	102	91 --- 107		
Bromoform	3.97	ug/L			4.00	99	72 --- 119		
Bromomethane	4.21	ug/L			4.00	105	19 --- 160		
Carbon disulfide	8.48	ug/L			8.00	106	77 --- 128		
Carbon tetrachloride	4.30	ug/L			4.00	108	79 --- 129		
Chlorobenzene	4.12	ug/L			4.00	103	81 --- 117		
Chloroethane	4.06	ug/L			4.00	102	80 --- 130		
Chloroform	4.24	ug/L			4.00	106	78 --- 116		
Chloromethane	3.87	ug/L			4.00	97	73 --- 120		

Lab Control Spike Water

Analytical Run #:	137835	Analysis Date:	05/16/2017	Prep Batch #:	Matrix:	LIQUID
CTLab #:	868450	Analysis Time:	16:00	Prep Date/Time:	Method:	SW8260C
Parent Sample #:		Analyst:	RLD	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
cis-1,2-Dichloroethene	4.25	ug/L			4.00	106	80 --- 120		
cis-1,3-Dichloropropene	4.30	ug/L			4.00	108	81 --- 118		
d8-Toluene	101	% Recovery			100	101	95 --- 103		
Dibromochloromethane	3.90	ug/L			4.00	98	81 --- 115		
Dibromofluoromethane	101	% Recovery			100	101	92 --- 106		
Dibromomethane	4.10	ug/L			4.00	102	79 --- 118		
Dichlorodifluoromethane	4.18	ug/L			4.00	104	80 --- 125		
Diisopropyl ether	4.21	ug/L			4.00	105	81 --- 120		
Ethylbenzene	4.35	ug/L			4.00	109	81 --- 124		
Hexachlorobutadiene	4.02	ug/L			4.00	100	71 --- 131		
Isopropylbenzene	4.34	ug/L			4.00	108	80 --- 127		
m & p-Xylene	8.59	ug/L			8.00	107	81 --- 123		
Methyl tert-butyl ether	4.12	ug/L			4.00	103	80 --- 116		
Methylene chloride	4.10	ug/L			4.00	102	79 --- 125		
n-Butylbenzene	4.18	ug/L			4.00	104	81 --- 124		
n-Propylbenzene	4.42	ug/L			4.00	110	81 --- 127		
Naphthalene	3.97	ug/L			4.00	99	64 --- 126		
o-Xylene	4.30	ug/L			4.00	108	81 --- 122		
p-Isopropyltoluene	4.37	ug/L			4.00	109	84 --- 124		
sec-Butylbenzene	4.35	ug/L			4.00	109	84 --- 125		
Styrene	4.27	ug/L			4.00	107	82 --- 122		
tert-Butylbenzene	4.29	ug/L			4.00	107	82 --- 123		
Tetrachloroethene	4.16	ug/L			4.00	104	80 --- 124		
Tetrahydrofuran	37.3	ug/L			40.0	93	66 --- 128		
Toluene	4.26	ug/L			4.00	106	80 --- 119		
trans-1,2-Dichloroethene	4.11	ug/L			4.00	103	77 --- 125		
trans-1,3-Dichloropropene	3.94	ug/L			4.00	98	79 --- 119		
Trichloroethene	4.32	ug/L			4.00	108	78 --- 122		
Trichlorofluoromethane	4.11	ug/L			4.00	103	78 --- 129		
Vinyl acetate	38.7	ug/L			40.0	97	78 --- 126		
Vinyl chloride	4.17	ug/L			4.00	104	79 --- 127		

Method Blank Water

Analytical Run #: 137835	Analysis Date: 05/16/2017	Prep Batch #:	Matrix: LIQUID
CTLab #: 868464	Analysis Time: 17:25	Prep Date/Time:	Method: SW8260C
Parent Sample #:	Analyst: RLD	Prep Analyst:	

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	0.04	ug/L		U	0		0.04		
1,1,1-Trichloroethane	0.05	ug/L		U	0		0.05		
1,1,2,2-Tetrachloroethane	0.017	ug/L		U	0		0.017		
1,1,2-Trichloroethane	0.05	ug/L		U	0		0.05		
1,1-Dichloroethane	0.06	ug/L		U	0		0.06		
1,1-Dichloroethene	0.06	ug/L		U	0		0.06		
1,1-Dichloropropene	0.06	ug/L		U	0		0.06		
1,2 Dichloroethane-d4	98.0	% Recovery			100	98.0	68 --- 120		
1,2,3-Trichlorobenzene	0.04	ug/L		U	0		0.04		
1,2,3-Trichloropropane	0.04	ug/L		U	0		0.04		
1,2,4-Trichlorobenzene	0.04	ug/L		U	0		0.04		
1,2,4-Trimethylbenzene	0.04	ug/L		U	0		0.04		
1,2-Dibromo-3-chloropropane	0.09	ug/L		U	0		0.09		
1,2-Dibromoethane	0.07	ug/L		U	0		0.07		
1,2-Dichlorobenzene	0.04	ug/L		U	0		0.04		
1,2-Dichloroethane	0.05	ug/L		U	0		0.05		
1,2-Dichloropropane	0.07	ug/L		U	0		0.07		
1,3,5-Trimethylbenzene	0.05	ug/L		U	0		0.05		
1,3-Dichlorobenzene	0.04	ug/L		U	0		0.04		
1,3-Dichloropropane	0.04	ug/L		U	0		0.04		
1,4-Dichlorobenzene	0.04	ug/L		U	0		0.04		
1,4-Dioxane	7	ug/L		U	0		7		
2,2-Dichloropropane	0.05	ug/L		U	0		0.05		
2-Butanone	0.5	ug/L		U	0		0.5		
2-Chlorotoluene	0.03	ug/L		U	0		0.03		
2-Hexanone	0.24	ug/L		U	0		0.24		
4-Chlorotoluene	0.04	ug/L		U	0		0.04		
4-Methyl-2-pentanone	0.24	ug/L		U	0		0.24		
Acetone	1.12	ug/L			0		0.30		
Benzene	0.018	ug/L		U	0		0.018		
Bromobenzene	0.04	ug/L		U	0		0.04		
Bromochloromethane	0.030	ug/L		U	0		0.030		
Bromodichloromethane	0.016	ug/L		U	0		0.016		
Bromofluorobenzene	100	% Recovery			100	100	68 --- 120		
Bromoform	0.04	ug/L		U	0		0.04		
Bromomethane	0.08	ug/L		U	0		0.08		
Carbon disulfide	0.07	ug/L		U	0		0.07		
Carbon tetrachloride	0.05	ug/L		U	0		0.05		
Chlorobenzene	0.04	ug/L		U	0		0.04		
Chloroethane	0.07	ug/L		U	0		0.07		
Chloroform	0.03	ug/L		U	0		0.03		
Chloromethane	0.0425	ug/L			0		0.04		

Method Blank Water

Analytical Run #:	137835	Analysis Date:	05/16/2017	Prep Batch #:	Matrix:	LIQUID
CTLab #:	868464	Analysis Time:	17:25	Prep Date/Time:	Method:	SW8260C
Parent Sample #:		Analyst:	RLD	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
cis-1,2-Dichloroethene	0.07	ug/L		U	0		0.07		
cis-1,3-Dichloropropene	0.011	ug/L		U	0		0.011		
d8-Toluene	102	% Recovery			100	102	71 --- 117		
Dibromochloromethane	0.03	ug/L		U	0		0.03		
Dibromofluoromethane	101	% Recovery			100	101	67 --- 122		
Dibromomethane	0.05	ug/L		U	0		0.05		
Dichlorodifluoromethane	0.06	ug/L		U	0		0.06		
Diisopropyl ether	0.04	ug/L		U	0		0.04		
Ethylbenzene	0.04	ug/L		U	0		0.04		
Hexachlorobutadiene	0.05	ug/L		U	0		0.05		
Isopropylbenzene	0.04	ug/L		U	0		0.04		
m & p-Xylene	0.07	ug/L		U	0		0.07		
Methyl tert-butyl ether	0.04	ug/L		U	0		0.04		
Methylene chloride	0.05	ug/L		U	0		0.05		
n-Butylbenzene	0.03	ug/L		U	0		0.03		
n-Propylbenzene	0.04	ug/L		U	0		0.04		
Naphthalene	0.03	ug/L		U	0		0.03		
o-Xylene	0.04	ug/L		U	0		0.04		
p-Isopropyltoluene	0.04	ug/L		U	0		0.04		
sec-Butylbenzene	0.05	ug/L		U	0		0.05		
Styrene	0.03	ug/L		U	0		0.03		
tert-Butylbenzene	0.04	ug/L		U	0		0.04		
Tetrachloroethene	0.05	ug/L		U	0		0.05		
Tetrahydrofuran	0.4	ug/L		U	0		0.4		
Toluene	0.04	ug/L		U	0		0.04		
trans-1,2-Dichloroethene	0.04	ug/L		U	0		0.04		
trans-1,3-Dichloropropene	0.019	ug/L		U	0		0.019		
Trichloroethene	0.05	ug/L		U	0		0.05		
Trichlorofluoromethane	0.09	ug/L		U	0		0.09		
Vinyl acetate	0.22	ug/L		U	0		0.22		
Vinyl chloride	0.019	ug/L		U	0		0.019		

Matrix Spike Duplicate Water

Analytical Run #:	137835	Analysis Date:	05/17/2017	Prep Batch #:	Matrix:	GROUND WATER
CTLab #:	872542	Analysis Time:	22:05	Prep Date/Time:	Method:	SW8260C
Parent Sample #:	872541	Analyst:	RLD	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	210	ug/L	BDL		200	105	68 --- 120	6	21
1,1,1-Trichloroethane	262	ug/L	36		200	113	78 --- 120	5	20
1,1,2,2-Tetrachloroethane	207	ug/L	BDL		200	104	57 --- 130	1	22
1,1,2-Trichloroethane	207	ug/L	BDL		200	104	67 --- 112	4	25
1,1-Dichloroethane	227	ug/L	6.7		200	110	66 --- 121	2	25
1,1-Dichloroethene	226	ug/L	BDL		200	113	77 --- 123	6	24
1,1-Dichloropropene	225	ug/L	BDL		200	112	77 --- 122	3	21
1,2 Dichloroethane-d4	96.0	% Recovery			100	96.0	85 --- 107		7
1,2,3-Trichlorobenzene	203	ug/L	BDL		200	102	64 --- 122	3	31
1,2,3-Trichloropropane	187	ug/L	BDL		200	94	38 --- 129	3	26
1,2,4-Trichlorobenzene	207	ug/L	BDL		200	104	67 --- 126	2	29
1,2,4-Trimethylbenzene	220	ug/L	BDL		200	110	72 --- 125	1	36
1,2-Dibromo-3-chloropropane	181	ug/L	BDL		200	90	44 --- 129	7	34
1,2-Dibromoethane	204	ug/L	BDL		200	102	69 --- 111	1	22
1,2-Dichlorobenzene	213	ug/L	BDL		200	106	69 --- 119	0	23
1,2-Dichloroethane	209	ug/L	BDL		200	104	68 --- 113	1	21
1,2-Dichloropropane	214	ug/L	BDL		200	107	70 --- 116	2	19
1,3,5-Trimethylbenzene	217	ug/L	BDL		200	108	75 --- 125	1	34
1,3-Dichlorobenzene	217	ug/L	BDL		200	108	73 --- 119	0	22
1,3-Dichloropropane	204	ug/L	BDL		200	102	66 --- 113	3	23
1,4-Dichlorobenzene	213	ug/L	BDL		200	106	71 --- 119	1	22
1,4-Dioxane	13900	ug/L	BDL		10000	139	70 --- 130	175	20
2,2-Dichloropropane	212	ug/L	BDL		200	106	72 --- 120	11	21
2-Butanone	1930	ug/L	BDL		2000	96	51 --- 122	5	29
2-Chlorotoluene	213	ug/L	BDL		200	106	73 --- 123	0	20
2-Hexanone	2010	ug/L	BDL		2000	100	47 --- 136	6	28
4-Chlorotoluene	209	ug/L	BDL		200	104	73 --- 124	2	22
4-Methyl-2-pentanone	2090	ug/L	BDL		2000	104	52 --- 135	4	29
Acetone	1730	ug/L	48		2000	84	13 --- 131	195	39
Benzene	219	ug/L	BDL		200	110	76 --- 117	0	17
Bromobenzene	207	ug/L	BDL		200	104	68 --- 118	1	20
Bromochloromethane	207	ug/L	BDL		200	104	67 --- 110	7	22
Bromodichloromethane	222	ug/L	BDL		200	111	68 --- 115	5	20
Bromofluorobenzene	97.0	% Recovery			100	97.0	82 --- 117		7
Bromoform	203	ug/L	BDL		200	102	48 --- 120	5	28
Bromomethane	193	ug/L	BDL		200	96	52 --- 147	8	34
Carbon disulfide	461	ug/L	BDL		400	115	78 --- 126	51	31
Carbon tetrachloride	233	ug/L	BDL		200	116	78 --- 128	8	20
Chlorobenzene	211	ug/L	BDL		200	106	72 --- 116	1	21
Chloroethane	214	ug/L	BDL		200	107	63 --- 144	0	26
Chloroform	222	ug/L	BDL		200	111	71 --- 111	1	18
Chloromethane	197	ug/L	BDL		200	98	52 --- 141	3	21

Matrix Spike Duplicate Water

Analytical Run #:	137835	Analysis Date:	05/17/2017	Prep Batch #:	Matrix:	GROUND WATER
CTLab #:	872542	Analysis Time:	22:05	Prep Date/Time:	Method:	SW8260C
Parent Sample #:	872541	Analyst:	RLD	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
cis-1,2-Dichloroethene	266	ug/L	49		200	108	66 --- 120	2	21
cis-1,3-Dichloropropene	213	ug/L	BDL		200	106	66 --- 114	1	21
d8-Toluene	103	% Recovery		S	100	103	95 --- 102		7
Dibromochloromethane	203	ug/L	BDL		200	102	62 --- 116	7	23
Dibromofluoromethane	102	% Recovery			100	102	90 --- 108		7
Dibromomethane	202	ug/L	BDL		200	101	66 --- 112	5	21
Dichlorodifluoromethane	222	ug/L	BDL		200	111	75 --- 142	1	22
Diisopropyl ether	224	ug/L	BDL		200	112	69 --- 123	0	27
Ethylbenzene	224	ug/L	BDL		200	112	78 --- 120	0	24
Hexachlorobutadiene	213	ug/L	BDL		200	106	69 --- 133	0	30
Isopropylbenzene	227	ug/L	BDL		200	114	77 --- 123	2	24
m & p-Xylene	443	ug/L	BDL		400	111	76 --- 119	1	28
Methyl tert-butyl ether	213	ug/L	BDL		200	106	64 --- 113	1	33
Methylene chloride	221	ug/L	14		200	104	69 --- 112	37	36
n-Butylbenzene	214	ug/L	BDL		200	107	77 --- 131	2	24
n-Propylbenzene	223	ug/L	BDL		200	112	77 --- 128	0	23
Naphthalene	192	ug/L	BDL		200	96	58 --- 120	6	31
o-Xylene	220	ug/L	BDL		200	110	73 --- 118	1	26
p-Isopropyltoluene	223	ug/L	BDL		200	112	77 --- 128	0	27
sec-Butylbenzene	221	ug/L	BDL		200	110	76 --- 131	0	23
Styrene	217	ug/L	BDL		200	108	72 --- 120	2	40
tert-Butylbenzene	223	ug/L	BDL		200	112	75 --- 126	2	22
Tetrachloroethene	228	ug/L	BDL		200	114	74 --- 121	3	21
Tetrahydrofuran	1920	ug/L	BDL		2000	96	49 --- 125	1	28
Toluene	220	ug/L	BDL		200	110	74 --- 115	2	19
trans-1,2-Dichloroethene	218	ug/L	BDL		200	109	76 --- 118	15	28
trans-1,3-Dichloropropene	197	ug/L	BDL		200	98	61 --- 115	4	21
Trichloroethene	568	ug/L	380		200	94	75 --- 114	0	19
Trichlorofluoromethane	226	ug/L	BDL		200	113	79 --- 128	3	23
Vinyl acetate	2140	ug/L	BDL		2000	107	60 --- 131	4	25
Vinyl chloride	223	ug/L	1.5		200	111	70 --- 140	3	21

Matrix Spike Water

Analytical Run #:	137835	Analysis Date:	05/17/2017	Prep Batch #:	Matrix:	GROUND WATER
CTLab #:	872541	Analysis Time:	21:37	Prep Date/Time:	Method:	SW8260C
Parent Sample #:	865578	Analyst:	RLD	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	198	ug/L	BDL		200	99	68 --- 120		21
1,1,1-Trichloroethane	248	ug/L	36		200	106	78 --- 120		20
1,1,2,2-Tetrachloroethane	210	ug/L	BDL		200	105	57 --- 130		22
1,1,2-Trichloroethane	215	ug/L	BDL		200	108	67 --- 112		25
1,1-Dichloroethane	223	ug/L	6.7		200	108	66 --- 121		25
1,1-Dichloroethene	212	ug/L	BDL		200	106	77 --- 123		24
1,1-Dichloropropene	217	ug/L	BDL		200	108	77 --- 122		21
1,2 Dichloroethane-d4	99.0	% Recovery			100	99.0	85 --- 107		7
1,2,3-Trichlorobenzene	209	ug/L	BDL		200	104	64 --- 122		31
1,2,3-Trichloropropane	193	ug/L	BDL		200	96	38 --- 129		26
1,2,4-Trichlorobenzene	211	ug/L	BDL		200	106	67 --- 126		29
1,2,4-Trimethylbenzene	222	ug/L	BDL		200	111	72 --- 125		36
1,2-Dibromo-3-chloropropane	194	ug/L	BDL		200	97	44 --- 129		34
1,2-Dibromoethane	205	ug/L	BDL		200	102	69 --- 111		22
1,2-Dichlorobenzene	214	ug/L	BDL		200	107	69 --- 119		23
1,2-Dichloroethane	211	ug/L	BDL		200	106	68 --- 113		21
1,2-Dichloropropane	219	ug/L	BDL		200	110	70 --- 116		19
1,3,5-Trimethylbenzene	220	ug/L	BDL		200	110	75 --- 125		34
1,3-Dichlorobenzene	217	ug/L	BDL		200	108	73 --- 119		22
1,3-Dichloropropane	210	ug/L	BDL		200	105	66 --- 113		23
1,4-Dichlorobenzene	215	ug/L	BDL		200	108	71 --- 119		22
1,4-Dioxane	927	ug/L	BDL		10000	9	70 --- 130		20
2,2-Dichloropropane	190	ug/L	BDL		200	95	72 --- 120		21
2-Butanone	2020	ug/L	BDL		2000	101	51 --- 122		29
2-Chlorotoluene	214	ug/L	BDL		200	107	73 --- 123		20
2-Hexanone	2130	ug/L	BDL		2000	106	47 --- 136		28
4-Chlorotoluene	214	ug/L	BDL		200	107	73 --- 124		22
4-Methyl-2-pentanone	2180	ug/L	BDL		2000	109	52 --- 135		29
Acetone	21.0	ug/L	48		2000	0	13 --- 131		39
Benzene	218	ug/L	BDL		200	109	76 --- 117		17
Bromobenzene	209	ug/L	BDL		200	104	68 --- 118		20
Bromochloromethane	221	ug/L	BDL		200	110	67 --- 110		22
Bromodichloromethane	211	ug/L	BDL		200	106	68 --- 115		20
Bromofluorobenzene	98.0	% Recovery			100	98.0	82 --- 117		7
Bromoform	194	ug/L	BDL		200	97	48 --- 120		28
Bromomethane	177	ug/L	BDL		200	88	52 --- 147		34
Carbon disulfide	274	ug/L	BDL		400	68	78 --- 126		31
Carbon tetrachloride	216	ug/L	BDL		200	108	78 --- 128		20
Chlorobenzene	213	ug/L	BDL		200	106	72 --- 116		21
Chloroethane	215	ug/L	BDL		200	108	63 --- 144		26
Chloroform	219	ug/L	BDL		200	110	71 --- 111		18
Chloromethane	191	ug/L	BDL		200	96	52 --- 141		21

Matrix Spike Water

Analytical Run #:	137835	Analysis Date:	05/17/2017	Prep Batch #:	Matrix:	GROUND WATER
CTLab #:	872541	Analysis Time:	21:37	Prep Date/Time:	Method:	SW8260C
Parent Sample #:	865578	Analyst:	RLD	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
cis-1,2-Dichloroethene	261	ug/L	49		200	106	66 --- 120		21
cis-1,3-Dichloropropene	211	ug/L	BDL		200	106	66 --- 114		21
d8-Toluene	102	% Recovery			100	102	95 --- 102		7
Dibromochloromethane	189	ug/L	BDL		200	94	62 --- 116		23
Dibromofluoromethane	102	% Recovery			100	102	90 --- 108		7
Dibromomethane	212	ug/L	BDL		200	106	66 --- 112		21
Dichlorodifluoromethane	221	ug/L	BDL		200	110	75 --- 142		22
Diisopropyl ether	224	ug/L	BDL		200	112	69 --- 123		27
Ethylbenzene	223	ug/L	BDL		200	112	78 --- 120		24
Hexachlorobutadiene	214	ug/L	BDL		200	107	69 --- 133		30
Isopropylbenzene	223	ug/L	BDL		200	112	77 --- 123		24
m & p-Xylene	440	ug/L	BDL		400	110	76 --- 119		28
Methyl tert-butyl ether	211	ug/L	BDL		200	106	64 --- 113		33
Methylene chloride	153	ug/L	14		200	70	69 --- 112		36
n-Butylbenzene	218	ug/L	BDL		200	109	77 --- 131		24
n-Propylbenzene	223	ug/L	BDL		200	112	77 --- 128		23
Naphthalene	204	ug/L	BDL		200	102	58 --- 120		31
o-Xylene	218	ug/L	BDL		200	109	73 --- 118		26
p-Isopropyltoluene	222	ug/L	BDL		200	111	77 --- 128		27
sec-Butylbenzene	221	ug/L	BDL		200	110	76 --- 131		23
Styrene	222	ug/L	BDL		200	111	72 --- 120		40
tert-Butylbenzene	219	ug/L	BDL		200	110	75 --- 126		22
Tetrachloroethene	222	ug/L	BDL		200	111	74 --- 121		21
Tetrahydrofuran	1890	ug/L	BDL		2000	94	49 --- 125		28
Toluene	216	ug/L	BDL		200	108	74 --- 115		19
trans-1,2-Dichloroethene	188	ug/L	BDL		200	94	76 --- 118		28
trans-1,3-Dichloropropene	189	ug/L	BDL		200	94	61 --- 115		21
Trichloroethene	568	ug/L	380		200	94	75 --- 114		19
Trichlorofluoromethane	219	ug/L	BDL		200	110	79 --- 128		23
Vinyl acetate	2240	ug/L	BDL		2000	112	60 --- 131		25
Vinyl chloride	215	ug/L	1.5		200	107	70 --- 140		21

TETRA TECH

SDG #: 0

Folder #: 127236

Project Name: OCONOMOWOC

ELECTROPLATING

Project Number: 117-7413001.01

Lab Control Spike Water

Analytical Run #:	138061	Analysis Date:	05/22/2017	Prep Batch #:	62449	Matrix:	LIQUID
CTLab #:	869177	Analysis Time:	09:19	Prep Date/Time:	05/18/2017 10:45	Method:	RSK175
Parent Sample #:		Analyst:	AGK	Prep Analyst:	AGK		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Acetylene	2.28	ug/L			3.07	74	70 --- 130		20
Ethane	3.60	ug/L			4.78	75	66 --- 129		20
Ethene	5.22	ug/L			6.80	77	68 --- 128		20
Methane	1.78	ug/L			2.30	77	71 --- 126		20

TETRA TECH

SDG #: 0

Folder #: 127236

Project Name: OCONOMOWOC
ELECTROPLATING
Project Number: 117-7413001.01

Method Blank Water

Analytical Run #:	138061	Analysis Date:	05/22/2017	Prep Batch #:	62449	Matrix:	LIQUID
CTLab #:	869176	Analysis Time:	09:29	Prep Date/Time:	05/18/2017 10:45	Method:	RSK175
Parent Sample #:		Analyst:	AGK	Prep Analyst:	AGK		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Acetylene	0.23	ug/L		U	0		0.23		
Ethane	0.4	ug/L		U	0		0.4		
Ethene	0.5	ug/L		U	0		0.5		
Methane	0.4	ug/L		U	0		0.4		

TETRA TECH

SDG #: 0

Folder #: 127236

Project Name: OCONOMOWOC
ELECTROPLATING
Project Number: 117-7413001.01

Matrix Spike Duplicate Water

Analytical Run #:	138061	Analysis Date:	05/22/2017	Prep Batch #:	62449	Matrix:	GROUND WATER
CTLab #:	869179	Analysis Time:	14:50	Prep Date/Time:	05/18/2017 10:45	Method:	RSK175
Parent Sample #:	869178	Analyst:	AGK	Prep Analyst:	AGK		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Acetylene	1.25	ug/L	BDL		3.07	41	70 --- 130	16	20
Ethane	1.84	ug/L	BDL		4.78	38	50 --- 142	23	20
Ethene	2.64	ug/L	BDL		6.80	39	56 --- 138	22	43
Methane	7.06	ug/L	5.2		2.30	81	10 --- 163	16	20

TETRA TECH

SDG #: 0

Folder #: 127236

Project Name: OCONOMOWOC
ELECTROPLATING
Project Number: 117-7413001.01

Matrix Spike Water

Analytical Run #:	138061	Analysis Date:	05/22/2017	Prep Batch #:	62449	Matrix:	GROUND WATER
CTLab #:	869178	Analysis Time:	14:40	Prep Date/Time:	05/18/2017 10:45	Method:	RSK175
Parent Sample #:	865576	Analyst:	AGK	Prep Analyst:	AGK		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Acetylene	1.06	ug/L	BDL		3.07	35	70 --- 130		
Ethane	1.47	ug/L	BDL		4.78	31	50 --- 142		
Ethene	2.12	ug/L	BDL		6.80	31	56 --- 138		
Methane	6.04	ug/L	5.2		2.30	37	10 --- 163		

Sample Condition Report

Folder #: 127236	Print Date / Time: 05/10/2017 11:04
Client: TETRA TECH	Received Date / Time / By: 05/10/2017 10:25 JLS
Project Name: OCONOMOWOC ELECTROPLATING	Log-In Date / Time / By: 05/10/2017 11:05 BNA
Project Phase: OCONOMOWOC, WI	Project #: 117-7413001-01 PM: BMS
Coolers: 5436	Temperature: 3.4 C On Ice: Y
Custody Seals Present : Y	COC Present?: Y Complete? Y
Seal Intact? Y	Numbers: SIGNED AND DATED
Ship Method: FEDEX	Tracking Number: 779102598181
Adequate Packaging: Y	Temp Blank Enclosed? Y

Notes: THE SAMPLES WERE RECEIVED IN GOOD CONDITION ON ICE.

ONE CUSTODY SEAL WAS PRESENT AND INTACT UPON RECEIPT - DATED 5-9-17 AND SIGNED.

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
865576 MW-103S	UNPRES PL	1	/	ALK,Anions
	Total # of Containers of Type (UNPRES PL) = 1			
865576 MW-103S	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	
	VOA HCL	1	/	
	VOA HCL	1	/	
	VOA HCL	1	/	
	VOA HCL	1	/	
	VOA HCL	1	/	
Total # of Containers of Type (VOA HCL) = 6				
865576 MW-103S	HNO3	1	Y /	ICP
	Total # of Containers of Type (HNO3) = 1			
865576 MW-103S	H2SO4 PL	1	Y /	TOC
	Total # of Containers of Type (H2SO4 PL) = 1			

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
865577 MW-103S	HNO3	1	Y /	ICP
	Total # of Containers of Type (HNO3) = 1			

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
865578 MW-103D				

UNPRES PL 1 /
Total # of Containers of Type (UNPRES PL) = 1

ALK,Anions

865578 MW-103D
 VOA HCL 1 / GAS,VOC
 VOA HCL 1 / GAS,VOC
 VOA HCL 1 / GAS,VOC
 VOA HCL 1 / GAS,VOC
 VOA HCL 1 / GAS,VOC
 VOA HCL 1 / GAS,VOC
Total # of Containers of Type (VOA HCL) = 6

865578 MW-103D
 HNO3 1 Y / ICP
Total # of Containers of Type (HNO3) = 1

865578 MW-103D
 H2SO4 PL 1 Y / TOC
Total # of Containers of Type (H2SO4 PL) = 1

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
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865579 MW-103D
 HNO3 1 Y / ICP
Total # of Containers of Type (HNO3) = 1

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
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865580 MW-103D DUP
 UNPRES PL 1 / ALK,Anions
Total # of Containers of Type (UNPRES PL) = 1

865580 MW-103D DUP
 VOA HCL 1 / GAS,VOC
 VOA HCL 1 / GAS,VOC
 VOA HCL 1 / GAS,VOC
 VOA HCL 1 / GAS,VOC
 VOA HCL 1 / GAS,VOC
 VOA HCL 1 / GAS,VOC
Total # of Containers of Type (VOA HCL) = 6

865580 MW-103D DUP
 HNO3 1 Y / ICP
Total # of Containers of Type (HNO3) = 1

865580 MW-103D DUP
 H2SO4 PL 1 Y / TOC
Total # of Containers of Type (H2SO4 PL) = 1

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
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865581 MW-103D DUP
 HNO3 1 Y / ICP
Total # of Containers of Type (HNO3) = 1

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
865582 MW-12D	UNPRES PL	1	/	ALK,Anions
	Total # of Containers of Type		(UNPRES PL) = 1	

865582 MW-12D	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	Total # of Containers of Type		(VOA HCL) = 6	

865582 MW-12D	HNO3	1	Y /	ICP
	Total # of Containers of Type		(HNO3) = 1	

865582 MW-12D	H2SO4 PL	1	Y /	TOC
	Total # of Containers of Type		(H2SO4 PL) = 1	

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
865583 MW-12D	HNO3	1	Y /	ICP
	Total # of Containers of Type		(HNO3) = 1	

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
865584 MW-12S	UNPRES PL	1	/	ALK,Anions
	Total # of Containers of Type		(UNPRES PL) = 1	

865584 MW-12S	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	Total # of Containers of Type		(VOA HCL) = 6	

865584 MW-12S	HNO3	1	Y /	ICP
	Total # of Containers of Type		(HNO3) = 1	

865584 MW-12S	H2SO4 PL	1	Y /	TOC
	Total # of Containers of Type		(H2SO4 PL) = 1	

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
865585 MW-12S	HNO3	1	Y /	ICP
Total # of Containers of Type (HNO3) = 1				

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
865586 MW-12B	UNPRES PL	1	/	ALK,Anions
Total # of Containers of Type (UNPRES PL) = 1				

865586 MW-12B	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
Total # of Containers of Type (VOA HCL) = 6				

865586 MW-12B	HNO3	1	Y /	ICP
Total # of Containers of Type (HNO3) = 1				

865586 MW-12B	H2SO4 PL	1	Y /	TOC
Total # of Containers of Type (H2SO4 PL) = 1				

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
865587 MW-12B	HNO3	1	Y /	ICP
Total # of Containers of Type (HNO3) = 1				

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
865588 MW-13D	UNPRES PL	1	/	ALK,Anions
Total # of Containers of Type (UNPRES PL) = 1				

865588 MW-13D	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
Total # of Containers of Type (VOA HCL) = 6				

865588 MW-13D	HNO3	1	Y /	ICP
Total # of Containers of Type (HNO3) = 1				

865588 MW-13D
 H2SO4 PL 1 Y / TOC
Total # of Containers of Type (H2SO4 PL) = 1

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
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865589 MW-13D
 HNO3 1 Y / ICP
Total # of Containers of Type (HNO3) = 1

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
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865590 MW-13S
 UNPRES PL 1 / ALK,Anions
Total # of Containers of Type (UNPRES PL) = 1

865590 MW-13S
 VOA HCL 1 / GAS,VOC
 VOA HCL 1 / GAS,VOC
 VOA HCL 1 / GAS,VOC
 VOA HCL 1 / GAS,VOC
 VOA HCL 1 / GAS,VOC
 VOA HCL 1 / GAS,VOC
Total # of Containers of Type (VOA HCL) = 6

865590 MW-13S
 HNO3 1 Y / ICP
Total # of Containers of Type (HNO3) = 1

865590 MW-13S
 H2SO4 PL 1 Y / TOC
Total # of Containers of Type (H2SO4 PL) = 1

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
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865591 MW-13S
 HNO3 1 Y / ICP
Total # of Containers of Type (HNO3) = 1

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
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865592 TW-2021
 UNPRES PL 1 / ALK,Anions
Total # of Containers of Type (UNPRES PL) = 1

865592 TW-2021
 VOA HCL 1 / GAS,VOC
 VOA HCL 1 / GAS,VOC
 VOA HCL 1 / GAS,VOC
 VOA HCL 1 / GAS,VOC
 VOA HCL 1 / GAS,VOC
 VOA HCL 1 / GAS,VOC

Total # of Containers of Type (VOA HCL) = 6

865592 TW-2021
 HNO3 1 Y / ICP
Total # of Containers of Type (HNO3) = 1

865592 TW-2021
 H2SO4 PL 1 Y / TOC
Total # of Containers of Type (H2SO4 PL) = 1

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
865593 TW-2021	HNO3	1	Y /	ICP
Total # of Containers of Type (HNO3) = 1				

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
865594 TB-1	Trip Blank	1	/	VOC
	Trip Blank	1	/	VOC
	Trip Blank	1	/	VOC
Total # of Containers of Type (Trip Blank) = 3				

Condition Code Condition Description
 1 Sample Received OK

Company: Tetra Tech
 Project Contact: Mark Marthey
 Telephone: 262 792 1282
 Project Name: Oconomowoc Electropainting
 Project #: 117-7413001.01
 Location: Oconomowoc, WI
 Sampled By: Ashley Kowalewski

CT LABORATORIES

1230 Lange Court, Baraboo, WI 53913
 608-356-2760 Fax 608-356-2766
 www.ctlaboratories.com

Report To:
 EMAIL: mark.marthey@tetratech.com
 Company: Tetra Tech
 Address: 175 N Corporate Dr #100
 Brookfield WI 53005
 Invoice To: *
 EMAIL:
 Company:
 Address:

Folder #: 127236
 Company: TETRA TECH
 Project: OCONOMOWOC ELEC
 Logged By: BNA PMF BAI

ram:
 RCRA SDWA NPDES
 Waste Other _____

*Party listed is responsible for payment of invoice as per CT Laboratories' terms and conditions

Client Special Instructions
 *field filtered, also "FF" on sample containers.

Filtered? Y/N	ANALYSES REQUESTED										Total # Containers	Designated MS/MSD
	TDC	ICP Dissolved*	ICP Total	alkalinity	SRP	Bar-17C: meth, eth, xylene, toluene, styrene	VOC - 8200LL					

Turnaround Time
 Normal RUSH*
 Date Needed: _____
 Rush analysis requires prior CT Laboratories' approval
 Surcharges:
 24 hr 200%
 2-3 days 100%
 4-9 days 50%

Matrix:
 GW - groundwater SW - surface water WW - wastewater DW - drinking water
 S - soil/sediment SL - sludge A - air M - misc/waste

Collection		Matrix	Grab/Comp	Sample #	Sample ID Description	Filtered? Y/N	Fill in Spaces with Bottles per Test										CT Lab ID # Lab use only
Date/Time	Time						TDC	ICP Dissolved*	ICP Total	alkalinity	SRP	Bar-17C: meth, eth, xylene, toluene, styrene	VOC - 8200LL				
5-9	1025	SW	grab	1	MW-1035	N	1	1	1	1	3	3					865576/865577
	1100			2	MW-103D	N	1	1	1	1	3	3					865578/865579
	1105			3	MW-103D DUP		1	1	1	1	3	3					865580/865581
	1205			4	MW-12D		1	1	1	1	3	3					865582/865583
	1230			5	MW-12S		1	1	1	1	2	3					865584/865585
	1335			6	MW-12B		1	1	1	1	3	3					865586/865587
	1435			7	MW-13D		1	1	1	1	3	3					865588/865589
	1515			8	MW-13S		1	1	1	1	3	3					865590/865591
	1550			9	TW-202I		1	1	1	1	3	3					865592/865593
		DI		10	TB-1							2					865594

Relinquished By: Ashley Kowalewski
 Date/Time: 5-9-17 1745
 Received by: _____
 Date/Time: _____

Received By: _____
 Date/Time: 5/10/17 1025
 Received for Laboratory by: _____
 Date/Time: 5-10-17 1107

Lab Use Only
 Ice Present Yes No
 Temp 3.4 IR Gun 19
 Cooler # 5436

Cooler Receipt Form

Ice Present YES NO
Temperature 3.4
IR Gun # 19
Initials JKS
Date 5/10/17 Time 1025
Cooler #: 5436

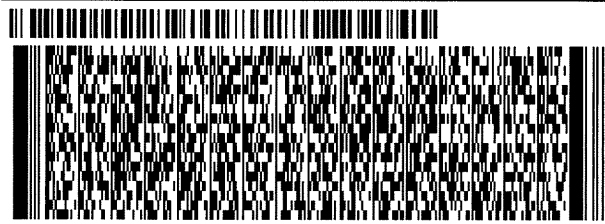
ORIGIN ID:RRLA (262) 792-1282
ASHLEY KOWALEWSKI
TETRA TECH
175 N CORPORATE DRIVE
STE. 100
BROOKFIELD, WI 53045
UNITED STATES US

SHIP DATE: 09MAY17
ACTWGT: 57.00 LB
CAD: 1104355/NET3850
DIMS: 25x14x15 IN
BILL SENDER

TO **BRETT SZYMANSKI**
CT LABORATORIES
1230 LANGE COURT

BARABOO WI 53913

(608) 356-2766 REF: 117-7413001.01
INV. DEPT:
PO:

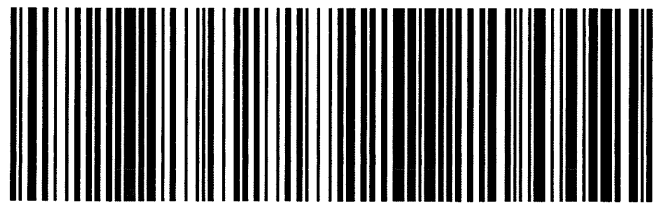


WED - 10 MAY 10:30A
PRIORITY OVERNIGHT

TRK# 7791 0259 8181
0201

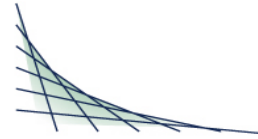
55 MSNA

DSR
53913
WI-US MSN



GUSTODY SEAL
DATE S-9-17
SIGNATURE Ashley Kowalewski
QEC
Quality Environmental Containers
800-255-3950 • 304-255-3900

FedEx Ship Manager - Print Your Label(s)



ANALYTICAL REPORT

This report at a minimum contains the following information:

- Analytical Report of Test Results
- Description of QC Qualifiers
- Chain of Custody (copy)
- Quality Control Summary
- Case Narrative (if applicable)
- Correspondence with Client (if applicable)

This report has been specifically prepared to satisfy project or program requirements. These results are in compliance with NELAC requirements for parameters where accreditation is required or available, unless otherwise noted in the case narrative.



ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase: OCONOMOWOC, WI
 Project #: 117-7413001.01
 Folder #: 127277
 Purchase Order #:
 Contract #: 2747

Page 1 of 5
 Arrival Temperature: 3.2
 Report Date: 05/26/2017
 Date Received: 05/11/2017
 Reprint Date: 05/26/2017

CT LAB#: 866019	Sample Description: MW-105B	DNR License/Well #: 4189/045	Sampled: 05/10/2017 1030
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Field Results										
Dissolved Oxygen (Field)	1.15	mg/L	N/A	N/A	1			05/24/2017 00:00	BMS	
OX/REDOX (Field)	-50	MV	N/A	N/A	1			05/24/2017 00:00	BMS	
Color (Field)	CLEAR		N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Conductivity (Field)	784	umhos/cm	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Groundwater Elevation (Field)	845.99	Feet MSL	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
pH (Field)	7.52	S.U.	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Temperature (Field)	10.76	Deg. C	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Turbidity (Field)	NO		N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Inorganic Results										
Alkalinity Total	400	mg/L	10	34	1			05/22/2017 11:07	SAW	EPA 310.2
Total Chloride	91	mg/L	2.1	7.2	3			05/12/2017 10:01	AGK	EPA 9056A
Total Sulfate	<1.0	mg/L	1.0	3.2	1	U		05/12/2017 09:40	AGK	EPA 9056A
Total Organic Carbon	1.3	mg/L	0.50	1.7	1	J		05/17/2017 23:10	AGK	EPA 9060A
Metals Results										
Total Iron	0.171	mg/L	0.034	0.11	1		05/11/2017 15:00	05/12/2017 15:32	NAH	EPA 6010C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis
 The groundwater elevation listed above is from the May 2016 sampling round and therefore incorrect for this round.

CT LAB#: 866019 Sample Description: MW-105B

DNR License/Well #: 4189/045

Sampled: 05/10/2017 1030

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Total Manganese	18.2	ug/L	3.4	11	1		05/11/2017 15:00	05/12/2017 15:32	NAH	EPA 6010C
Organic Results										
Acetylene	<0.23	ug/L	0.23	0.77	1	U	05/18/2017 10:45	05/22/2017 11:49	AGK	Mod RSK 175
Ethane	<0.40	ug/L	0.40	1.2	1	U	05/18/2017 10:45	05/22/2017 11:49	AGK	Mod RSK 175
Ethene	<0.50	ug/L	0.50	1.8	1	U	05/18/2017 10:45	05/22/2017 11:49	AGK	Mod RSK 175
Methane	13	ug/L	0.40	1.2	1		05/18/2017 10:45	05/22/2017 11:49	AGK	Mod RSK 175
1,1,1,2-Tetrachloroethane	<0.040	ug/L	0.040	0.13	1	U		05/16/2017 21:10	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.050	ug/L	0.050	0.17	1	U		05/16/2017 21:10	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.017	ug/L	0.017	0.057	1	U		05/16/2017 21:10	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.050	ug/L	0.050	0.16	1	U		05/16/2017 21:10	RLD	EPA 8260C
1,1-Dichloroethane	<0.060	ug/L	0.060	0.19	1	U		05/16/2017 21:10	RLD	EPA 8260C
1,1-Dichloroethene	<0.060	ug/L	0.060	0.20	1	U		05/16/2017 21:10	RLD	EPA 8260C
1,1-Dichloropropene	<0.060	ug/L	0.060	0.19	1	U		05/16/2017 21:10	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/16/2017 21:10	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.040	ug/L	0.040	0.14	1	U		05/16/2017 21:10	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.040	ug/L	0.040	0.12	1	U		05/16/2017 21:10	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.040	ug/L	0.040	0.12	1	U		05/16/2017 21:10	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.090	ug/L	0.090	0.29	1	U		05/16/2017 21:10	RLD	EPA 8260C
1,2-Dibromoethane	<0.070	ug/L	0.070	0.23	1	U		05/16/2017 21:10	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/16/2017 21:10	RLD	EPA 8260C
1,2-Dichloroethane	<0.050	ug/L	0.050	0.18	1	U		05/16/2017 21:10	RLD	EPA 8260C
1,2-Dichloropropane	<0.070	ug/L	0.070	0.23	1	U		05/16/2017 21:10	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<0.050	ug/L	0.050	0.16	1	U		05/16/2017 21:10	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/16/2017 21:10	RLD	EPA 8260C
1,3-Dichloropropane	<0.040	ug/L	0.040	0.13	1	U		05/16/2017 21:10	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 866019 Sample Description:MW-105B

DNR License/Well #: 4189/045

Sampled: 05/10/2017 1030

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,4-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/16/2017 21:10	RLD	EPA 8260C
1,4-Dioxane	15	ug/L	7.0	23	1	J		05/16/2017 21:10	RLD	EPA 8260C
2,2-Dichloropropane	<0.050	ug/L	0.050	0.15	1	U		05/16/2017 21:10	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.5	1	U		05/16/2017 21:10	RLD	EPA 8260C
2-Chlorotoluene	<0.030	ug/L	0.030	0.11	1	U		05/16/2017 21:10	RLD	EPA 8260C
2-Hexanone	<0.24	ug/L	0.24	0.81	1	U		05/16/2017 21:10	RLD	EPA 8260C
4-Chlorotoluene	<0.040	ug/L	0.040	0.12	1	U		05/16/2017 21:10	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.24	ug/L	0.24	0.82	1	U		05/16/2017 21:10	RLD	EPA 8260C
Acetone	0.47	ug/L	0.30	1.0	1	J B		05/16/2017 21:10	RLD	EPA 8260C
Benzene	<0.018	ug/L	0.018	0.059	1	U		05/16/2017 21:10	RLD	EPA 8260C
Bromobenzene	<0.040	ug/L	0.040	0.15	1	U		05/16/2017 21:10	RLD	EPA 8260C
Bromochloromethane	<0.030	ug/L	0.030	0.099	1	U		05/16/2017 21:10	RLD	EPA 8260C
Bromodichloromethane	<0.016	ug/L	0.016	0.054	1	U		05/16/2017 21:10	RLD	EPA 8260C
Bromoform	<0.040	ug/L	0.040	0.12	1	U		05/16/2017 21:10	RLD	EPA 8260C
Bromomethane	<0.080	ug/L	0.080	0.28	1	U		05/16/2017 21:10	RLD	EPA 8260C
Carbon disulfide	<0.070	ug/L	0.070	0.25	1	U		05/16/2017 21:10	RLD	EPA 8260C
Carbon tetrachloride	<0.050	ug/L	0.050	0.18	1	U		05/16/2017 21:10	RLD	EPA 8260C
Chlorobenzene	<0.040	ug/L	0.040	0.15	1	U		05/16/2017 21:10	RLD	EPA 8260C
Chloroethane	<0.070	ug/L	0.070	0.23	1	U		05/16/2017 21:10	RLD	EPA 8260C
Chloroform	<0.030	ug/L	0.030	0.11	1	U		05/16/2017 21:10	RLD	EPA 8260C
Chloromethane	0.095	ug/L	0.040	0.13	1	J B		05/16/2017 21:10	RLD	EPA 8260C
cis-1,2-Dichloroethene	<0.070	ug/L	0.070	0.23	1	U		05/16/2017 21:10	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.011	ug/L	0.011	0.038	1	U		05/16/2017 21:10	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1	U		05/16/2017 21:10	RLD	EPA 8260C
Dibromomethane	<0.050	ug/L	0.050	0.17	1	U		05/16/2017 21:10	RLD	EPA 8260C
Dichlorodifluoromethane	<0.060	ug/L	0.060	0.19	1	U		05/16/2017 21:10	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 866019 Sample Description: MW-105B

DNR License/Well #: 4189/045

Sampled: 05/10/2017 1030

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Diisopropyl ether	<0.040	ug/L	0.040	0.14	1	U	05/16/2017 21:10	21:10	RLD	EPA 8260C
Ethylbenzene	<0.040	ug/L	0.040	0.15	1	U	05/16/2017 21:10	21:10	RLD	EPA 8260C
Hexachlorobutadiene	<0.050	ug/L	0.050	0.16	1	U	05/16/2017 21:10	21:10	RLD	EPA 8260C
Isopropylbenzene	<0.040	ug/L	0.040	0.12	1	U	05/16/2017 21:10	21:10	RLD	EPA 8260C
m & p-Xylene	<0.070	ug/L	0.070	0.23	1	U	05/16/2017 21:10	21:10	RLD	EPA 8260C
Methyl tert-butyl ether	<0.040	ug/L	0.040	0.12	1	U	05/16/2017 21:10	21:10	RLD	EPA 8260C
Methylene chloride	<0.050	ug/L	0.050	0.16	1	U	05/16/2017 21:10	21:10	RLD	EPA 8260C
n-Butylbenzene	<0.030	ug/L	0.030	0.11	1	U	05/16/2017 21:10	21:10	RLD	EPA 8260C
n-Propylbenzene	<0.040	ug/L	0.040	0.13	1	U	05/16/2017 21:10	21:10	RLD	EPA 8260C
Naphthalene	<0.030	ug/L	0.030	0.10	1	U	05/16/2017 21:10	21:10	RLD	EPA 8260C
o-Xylene	<0.040	ug/L	0.040	0.14	1	U	05/16/2017 21:10	21:10	RLD	EPA 8260C
p-Isopropyltoluene	<0.040	ug/L	0.040	0.13	1	U	05/16/2017 21:10	21:10	RLD	EPA 8260C
sec-Butylbenzene	<0.050	ug/L	0.050	0.16	1	U	05/16/2017 21:10	21:10	RLD	EPA 8260C
Styrene	<0.030	ug/L	0.030	0.11	1	U	05/16/2017 21:10	21:10	RLD	EPA 8260C
tert-Butylbenzene	<0.040	ug/L	0.040	0.14	1	U	05/16/2017 21:10	21:10	RLD	EPA 8260C
Tetrachloroethene	<0.050	ug/L	0.050	0.18	1	U	05/16/2017 21:10	21:10	RLD	EPA 8260C
Tetrahydrofuran	<0.40	ug/L	0.40	1.5	1	U	05/16/2017 21:10	21:10	RLD	EPA 8260C
Toluene	<0.040	ug/L	0.040	0.13	1	U	05/16/2017 21:10	21:10	RLD	EPA 8260C
trans-1,2-Dichloroethene	<0.040	ug/L	0.040	0.14	1	U	05/16/2017 21:10	21:10	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.019	ug/L	0.019	0.063	1	U	05/16/2017 21:10	21:10	RLD	EPA 8260C
Trichloroethene	<0.050	ug/L	0.050	0.17	1	U	05/16/2017 21:10	21:10	RLD	EPA 8260C
Trichlorofluoromethane	<0.090	ug/L	0.090	0.14	1	U	05/16/2017 21:10	21:10	RLD	EPA 8260C
Vinyl acetate	<0.22	ug/L	0.22	0.73	1	U	05/16/2017 21:10	21:10	RLD	EPA 8260C
Vinyl chloride	<0.019	ug/L	0.019	0.064	1	U	05/16/2017 21:10	21:10	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

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Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications
Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
Louisiana NELAP (primary) ID# ACC20160002
Illinois NELAP Lab ID# 200073
Kansas NELAP Lab ID# E-10368
Virginia NELAP Lab ID# 460203
Maryland Lab ID# WI00061
ISO/IEC 17025-2005 A2LA Cert # 3806.01
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID ACC20160002
Pennsylvania NELAP Lab ID# 68-04201, # 008

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase: OCONOMOWOC, WI
 Project #: 117-7413001.01
 Folder #: 127277
 Purchase Order #:
 Contract #: 2747

Page 1 of 2
 Arrival Temperature: 3.2
 Report Date: 05/26/2017
 Date Received: 05/11/2017
 Reprint Date: 05/26/2017

CT LAB#: 866020	Sample Description: MW-105B	DNR License/Well #: 4189/045	Sampled: 05/10/2017 1030
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Metals Results										
Dissolved Iron	0.0775	mg/L	0.059	0.20	1	J		05/12/2017 13:51	NAH	EPA 6010C
Dissolved Manganese	11.9	ug/L	2.2	7.3	1			05/12/2017 13:51	NAH	EPA 6010C

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Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
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X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

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DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID ACC20160002
Pennsylvania NELAP Lab ID# 68-04201, # 008

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase: OCONOMOWOC, WI
 Project #: 117-7413001.01
 Folder #: 127277
 Purchase Order #:
 Contract #: 2747

Page 1 of 6
 Arrival Temperature: 3.2
 Report Date: 05/26/2017
 Date Received: 05/11/2017
 Reprint Date: 05/26/2017

CT LAB#: 866021	Sample Description: MW-105D	DNR License/Well #: 4189/044	Sampled: 05/10/2017 1105
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Field Results										
Dissolved Oxygen (Field)	0.68	mg/L	N/A	N/A	1			05/24/2017 00:00	BMS	
OX/REDOX (Field)	-63	MV	N/A	N/A	1			05/24/2017 00:00	BMS	
Color (Field)	CLEAR		N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Conductivity (Field)	1170	umhos/cm	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Groundwater Elevation (Field)	845.95	Feet MSL	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
pH (Field)	7.29	S.U.	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Temperature (Field)	10.59	Deg. C	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Turbidity (Field)	NO		N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Inorganic Results										
Alkalinity Total	430	mg/L	10	34	1			05/22/2017 11:08	SAW	EPA 310.2
Total Chloride	190	mg/L	4.2	14	6			05/12/2017 10:49	AGK	EPA 9056A
Total Sulfate	52	mg/L	1.0	3.2	1			05/12/2017 10:28	AGK	EPA 9056A
Total Organic Carbon	2.7	mg/L	0.50	1.7	1			05/17/2017 23:21	AGK	EPA 9060A
Metals Results										
Total Iron	3.02	mg/L	0.034	0.11	1		05/11/2017 15:00	05/12/2017 15:59	NAH	EPA 6010C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

The groundwater elevation listed above is from the May 2016 sampling round and therefore incorrect for this round.

CT LAB#: 866021 Sample Description: MW-105D

DNR License/Well #: 4189/044

Sampled: 05/10/2017 1105

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Total Manganese	49.6	ug/L	3.4	11	1		05/11/2017 15:00	05/12/2017 15:59	NAH	EPA 6010C
Organic Results										
Acetylene	<0.23	ug/L	0.23	0.77	1	U	05/18/2017 10:45	05/22/2017 11:28	AGK	Mod RSK 175
Ethane	<0.40	ug/L	0.40	1.2	1	U	05/18/2017 10:45	05/22/2017 11:28	AGK	Mod RSK 175
Ethene	<0.50	ug/L	0.50	1.8	1	U	05/18/2017 10:45	05/22/2017 11:28	AGK	Mod RSK 175
Methane	13	ug/L	0.40	1.2	1		05/18/2017 10:45	05/22/2017 11:28	AGK	Mod RSK 175
Volatile Organic Compounds 8260 Comments: Suspected methylene chloride laboratory contamination.										
1,1,1,2-Tetrachloroethane	<0.20	ug/L	0.20	0.65	5	U		05/17/2017 01:25	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.25	ug/L	0.25	0.85	5	U		05/17/2017 01:25	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.085	ug/L	0.085	0.29	5	U		05/17/2017 01:25	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.25	ug/L	0.25	0.80	5	U		05/17/2017 01:25	RLD	EPA 8260C
1,1-Dichloroethane	6.4	ug/L	0.30	0.95	5			05/17/2017 01:25	RLD	EPA 8260C
1,1-Dichloroethene	1.6	ug/L	0.30	1.0	5			05/17/2017 01:25	RLD	EPA 8260C
1,1-Dichloropropene	<0.30	ug/L	0.30	0.95	5	U		05/17/2017 01:25	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.20	ug/L	0.20	0.65	5	U		05/17/2017 01:25	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.20	ug/L	0.20	0.70	5	U		05/17/2017 01:25	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.20	ug/L	0.20	0.60	5	U		05/17/2017 01:25	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.20	ug/L	0.20	0.60	5	U		05/17/2017 01:25	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.45	ug/L	0.45	1.5	5	U		05/17/2017 01:25	RLD	EPA 8260C
1,2-Dibromoethane	<0.35	ug/L	0.35	1.2	5	U		05/17/2017 01:25	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.20	ug/L	0.20	0.65	5	U		05/17/2017 01:25	RLD	EPA 8260C
1,2-Dichloroethane	<0.25	ug/L	0.25	0.90	5	U		05/17/2017 01:25	RLD	EPA 8260C
1,2-Dichloropropane	<0.35	ug/L	0.35	1.2	5	U		05/17/2017 01:25	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<0.25	ug/L	0.25	0.80	5	U		05/17/2017 01:25	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 866021 Sample Description: MW-105D

DNR License/Well #: 4189/044

Sampled: 05/10/2017 1105

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Volatile Organic Compounds 8260 Comments: Suspected methylene chloride laboratory contamination.										
1,3-Dichlorobenzene	<0.20	ug/L	0.20	0.65	5	U		05/17/2017 01:25	RLD	EPA 8260C
1,3-Dichloropropane	<0.20	ug/L	0.20	0.65	5	U		05/17/2017 01:25	RLD	EPA 8260C
1,4-Dichlorobenzene	<0.20	ug/L	0.20	0.65	5	U		05/17/2017 01:25	RLD	EPA 8260C
1,4-Dioxane	<35	ug/L	35	120	5	U		05/17/2017 01:25	RLD	EPA 8260C
2,2-Dichloropropane	<0.25	ug/L	0.25	0.75	5	U		05/17/2017 01:25	RLD	EPA 8260C
2-Butanone	<2.5	ug/L	2.5	7.5	5	U		05/17/2017 01:25	RLD	EPA 8260C
2-Chlorotoluene	<0.15	ug/L	0.15	0.55	5	U		05/17/2017 01:25	RLD	EPA 8260C
2-Hexanone	<1.2	ug/L	1.2	4.1	5	U		05/17/2017 01:25	RLD	EPA 8260C
4-Chlorotoluene	<0.20	ug/L	0.20	0.60	5	U		05/17/2017 01:25	RLD	EPA 8260C
4-Methyl-2-pentanone	<1.2	ug/L	1.2	4.1	5	U		05/17/2017 01:25	RLD	EPA 8260C
Acetone	5.2	ug/L	1.5	5.0	5	B		05/17/2017 01:25	RLD	EPA 8260C
Benzene	<0.090	ug/L	0.090	0.30	5	U		05/17/2017 01:25	RLD	EPA 8260C
Bromobenzene	<0.20	ug/L	0.20	0.75	5	U		05/17/2017 01:25	RLD	EPA 8260C
Bromochloromethane	<0.15	ug/L	0.15	0.50	5	U		05/17/2017 01:25	RLD	EPA 8260C
Bromodichloromethane	<0.080	ug/L	0.080	0.27	5	U		05/17/2017 01:25	RLD	EPA 8260C
Bromoform	<0.20	ug/L	0.20	0.60	5	U		05/17/2017 01:25	RLD	EPA 8260C
Bromomethane	<0.40	ug/L	0.40	1.4	5	U		05/17/2017 01:25	RLD	EPA 8260C
Carbon disulfide	<0.35	ug/L	0.35	1.3	5	U		05/17/2017 01:25	RLD	EPA 8260C
Carbon tetrachloride	<0.25	ug/L	0.25	0.90	5	U		05/17/2017 01:25	RLD	EPA 8260C
Chlorobenzene	<0.20	ug/L	0.20	0.75	5	U		05/17/2017 01:25	RLD	EPA 8260C
Chloroethane	<0.35	ug/L	0.35	1.2	5	U		05/17/2017 01:25	RLD	EPA 8260C
Chloroform	<0.15	ug/L	0.15	0.55	5	U		05/17/2017 01:25	RLD	EPA 8260C
Chloromethane	0.25	ug/L	0.20	0.65	5	J B		05/17/2017 01:25	RLD	EPA 8260C
cis-1,2-Dichloroethene	68	ug/L	0.35	1.2	5			05/17/2017 01:25	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 866021 Sample Description: MW-105D

DNR License/Well #: 4189/044

Sampled: 05/10/2017 1105

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Volatile Organic Compounds 8260 Comments: Suspected methylene chloride laboratory contamination.										
cis-1,3-Dichloropropene	<0.055	ug/L	0.055	0.19	5	U	05/17/2017 01:25	05/17/2017 01:25	RLD	EPA 8260C
Dibromochloromethane	<0.15	ug/L	0.15	0.50	5	U	05/17/2017 01:25	05/17/2017 01:25	RLD	EPA 8260C
Dibromomethane	<0.25	ug/L	0.25	0.85	5	U	05/17/2017 01:25	05/17/2017 01:25	RLD	EPA 8260C
Dichlorodifluoromethane	<0.30	ug/L	0.30	0.95	5	U	05/17/2017 01:25	05/17/2017 01:25	RLD	EPA 8260C
Diisopropyl ether	<0.20	ug/L	0.20	0.70	5	U	05/17/2017 01:25	05/17/2017 01:25	RLD	EPA 8260C
Ethylbenzene	<0.20	ug/L	0.20	0.75	5	U	05/17/2017 01:25	05/17/2017 01:25	RLD	EPA 8260C
Hexachlorobutadiene	<0.25	ug/L	0.25	0.80	5	U	05/17/2017 01:25	05/17/2017 01:25	RLD	EPA 8260C
Isopropylbenzene	<0.20	ug/L	0.20	0.60	5	U	05/17/2017 01:25	05/17/2017 01:25	RLD	EPA 8260C
m & p-Xylene	<0.35	ug/L	0.35	1.2	5	U	05/17/2017 01:25	05/17/2017 01:25	RLD	EPA 8260C
Methyl tert-butyl ether	0.29	ug/L	0.20	0.60	5	J	05/17/2017 01:25	05/17/2017 01:25	RLD	EPA 8260C
Methylene chloride	2.6	ug/L	0.25	0.80	5		05/17/2017 01:25	05/17/2017 01:25	RLD	EPA 8260C
n-Butylbenzene	<0.15	ug/L	0.15	0.55	5	U	05/17/2017 01:25	05/17/2017 01:25	RLD	EPA 8260C
n-Propylbenzene	<0.20	ug/L	0.20	0.65	5	U	05/17/2017 01:25	05/17/2017 01:25	RLD	EPA 8260C
Naphthalene	<0.15	ug/L	0.15	0.50	5	U	05/17/2017 01:25	05/17/2017 01:25	RLD	EPA 8260C
o-Xylene	<0.20	ug/L	0.20	0.70	5	U	05/17/2017 01:25	05/17/2017 01:25	RLD	EPA 8260C
p-Isopropyltoluene	<0.20	ug/L	0.20	0.65	5	U	05/17/2017 01:25	05/17/2017 01:25	RLD	EPA 8260C
sec-Butylbenzene	<0.25	ug/L	0.25	0.80	5	U	05/17/2017 01:25	05/17/2017 01:25	RLD	EPA 8260C
Styrene	<0.15	ug/L	0.15	0.55	5	U	05/17/2017 01:25	05/17/2017 01:25	RLD	EPA 8260C
tert-Butylbenzene	<0.20	ug/L	0.20	0.70	5	U	05/17/2017 01:25	05/17/2017 01:25	RLD	EPA 8260C
Tetrachloroethene	<0.25	ug/L	0.25	0.90	5	U	05/17/2017 01:25	05/17/2017 01:25	RLD	EPA 8260C
Tetrahydrofuran	<2.0	ug/L	2.0	7.5	5	U	05/17/2017 01:25	05/17/2017 01:25	RLD	EPA 8260C
Toluene	<0.20	ug/L	0.20	0.65	5	U	05/17/2017 01:25	05/17/2017 01:25	RLD	EPA 8260C
trans-1,2-Dichloroethene	1.3	ug/L	0.20	0.70	5		05/17/2017 01:25	05/17/2017 01:25	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.095	ug/L	0.095	0.32	5	U	05/17/2017 01:25	05/17/2017 01:25	RLD	EPA 8260C

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CT LAB#: 866021 Sample Description: MW-105D

DNR License/Well #: 4189/044

Sampled: 05/10/2017 1105

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Volatile Organic Compounds 8260 Comments: Suspected methylene chloride laboratory contamination.										
Trichloroethene	0.55	ug/L	0.25	0.85	5	J		05/17/2017 01:25	RLD	EPA 8260C
Trichlorofluoromethane	<0.45	ug/L	0.45	0.70	5	U		05/17/2017 01:25	RLD	EPA 8260C
Vinyl acetate	<1.1	ug/L	1.1	3.7	5	U		05/17/2017 01:25	RLD	EPA 8260C
Vinyl chloride	2.9	ug/L	0.095	0.32	5			05/17/2017 01:25	RLD	EPA 8260C

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Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
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ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

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 Project #: 117-7413001.01
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 Date Received: 05/11/2017
 Reprint Date: 05/26/2017

CT LAB#: 866022	Sample Description: MW-105D	DNR License/Well #: 4189/044	Sampled: 05/10/2017 1105
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Metals Results										
Dissolved Iron	1.46	mg/L	0.059	0.20	1			05/12/2017 13:58	NAH	EPA 6010C
Dissolved Manganese	46.5	ug/L	2.2	7.3	1			05/12/2017 13:58	NAH	EPA 6010C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications
Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
Louisiana NELAP (primary) ID# ACC20160002
Illinois NELAP Lab ID# 200073
Kansas NELAP Lab ID# E-10368
Virginia NELAP Lab ID# 460203
Maryland Lab ID# WI00061
ISO/IEC 17025-2005 A2LA Cert # 3806.01
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID ACC20160002
Pennsylvania NELAP Lab ID# 68-04201, # 008

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase: OCONOMOWOC, WI
 Project #: 117-7413001.01
 Folder #: 127277
 Purchase Order #:
 Contract #: 2747

Page 1 of 5
 Arrival Temperature: 3.2
 Report Date: 05/26/2017
 Date Received: 05/11/2017
 Reprint Date: 05/26/2017

CT LAB#: 866023 Sample Description: MW-105S

DNR License/Well #: 4189/043

Sampled: 05/10/2017 1155

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Field Results										
Dissolved Oxygen (Field)	0	mg/L	N/A	N/A	1			05/24/2017 00:00	BMS	
OX/REDOX (Field)	-50	MV	N/A	N/A	1			05/24/2017 00:00	BMS	
Color (Field)	CLEAR		N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Conductivity (Field)	944	umhos/cm	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Groundwater Elevation (Field)	845.51	Feet MSL	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
pH (Field)	7.22	S.U.	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Temperature (Field)	9.00	Deg. C	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Turbidity (Field)	NO		N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Inorganic Results										
Alkalinity Total	430	mg/L	10	34	1			05/22/2017 11:09	SAW	EPA 310.2
Total Chloride	200	mg/L	4.2	14	6			05/12/2017 11:37	AGK	EPA 9056A
Total Sulfate	52	mg/L	1.0	3.2	1			05/12/2017 11:16	AGK	EPA 9056A
Total Organic Carbon	3.1	mg/L	0.50	1.7	1			05/17/2017 23:34	AGK	EPA 9060A
Metals Results										
Total Iron	3.28	mg/L	0.034	0.11	1		05/11/2017 15:00	05/12/2017 16:06	NAH	EPA 6010C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

The groundwater elevation listed above is from the May 2016 sampling round and therefore incorrect for this round.

CT LAB#: 866023 Sample Description: MW-105S

DNR License/Well #: 4189/043

Sampled: 05/10/2017 1155

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Total Manganese	166	ug/L	3.4	11	1		05/11/2017 15:00	05/12/2017 16:06	NAH	EPA 6010C
Organic Results										
Acetylene	<0.23	ug/L	0.23	0.77	1	U	05/18/2017 10:45	05/22/2017 11:14	AGK	Mod RSK 175
Ethane	<0.40	ug/L	0.40	1.2	1	U	05/18/2017 10:45	05/22/2017 11:14	AGK	Mod RSK 175
Ethene	<0.50	ug/L	0.50	1.8	1	U	05/18/2017 10:45	05/22/2017 11:14	AGK	Mod RSK 175
Methane	9.7	ug/L	0.40	1.2	1		05/18/2017 10:45	05/22/2017 11:14	AGK	Mod RSK 175
1,1,1,2-Tetrachloroethane	<8.0	ug/L	8.0	26	200	U		05/17/2017 20:12	RLD	EPA 8260C
1,1,1-Trichloroethane	<10	ug/L	10	34	200	U		05/17/2017 20:12	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<3.4	ug/L	3.4	11	200	U		05/17/2017 20:12	RLD	EPA 8260C
1,1,2-Trichloroethane	<10	ug/L	10	32	200	U		05/17/2017 20:12	RLD	EPA 8260C
1,1-Dichloroethane	110	ug/L	12	38	200			05/17/2017 20:12	RLD	EPA 8260C
1,1-Dichloroethene	20	ug/L	12	40	200	J		05/17/2017 20:12	RLD	EPA 8260C
1,1-Dichloropropene	<12	ug/L	12	38	200	U		05/17/2017 20:12	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<8.0	ug/L	8.0	26	200	U		05/17/2017 20:12	RLD	EPA 8260C
1,2,3-Trichloropropane	<8.0	ug/L	8.0	28	200	U		05/17/2017 20:12	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<8.0	ug/L	8.0	24	200	U		05/17/2017 20:12	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<8.0	ug/L	8.0	24	200	U		05/17/2017 20:12	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<18	ug/L	18	58	200	U		05/17/2017 20:12	RLD	EPA 8260C
1,2-Dibromoethane	<14	ug/L	14	46	200	U		05/17/2017 20:12	RLD	EPA 8260C
1,2-Dichlorobenzene	<8.0	ug/L	8.0	26	200	U		05/17/2017 20:12	RLD	EPA 8260C
1,2-Dichloroethane	<10	ug/L	10	36	200	U		05/17/2017 20:12	RLD	EPA 8260C
1,2-Dichloropropane	<14	ug/L	14	46	200	U		05/17/2017 20:12	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<10	ug/L	10	32	200	U		05/17/2017 20:12	RLD	EPA 8260C
1,3-Dichlorobenzene	<8.0	ug/L	8.0	26	200	U		05/17/2017 20:12	RLD	EPA 8260C
1,3-Dichloropropane	<8.0	ug/L	8.0	26	200	U		05/17/2017 20:12	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 866023 Sample Description:MW-105S

DNR License/Well #: 4189/043

Sampled: 05/10/2017 1155

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,4-Dichlorobenzene	<8.0	ug/L	8.0	26	200	U		05/17/2017 20:12	RLD	EPA 8260C
1,4-Dioxane	<1400	ug/L	1400	4600	200	U		05/17/2017 20:12	RLD	EPA 8260C
2,2-Dichloropropane	<10	ug/L	10	30	200	U		05/17/2017 20:12	RLD	EPA 8260C
2-Butanone	<100	ug/L	100	300	200	U		05/17/2017 20:12	RLD	EPA 8260C
2-Chlorotoluene	<6.0	ug/L	6.0	22	200	U		05/17/2017 20:12	RLD	EPA 8260C
2-Hexanone	<48	ug/L	48	160	200	U		05/17/2017 20:12	RLD	EPA 8260C
4-Chlorotoluene	<8.0	ug/L	8.0	24	200	U		05/17/2017 20:12	RLD	EPA 8260C
4-Methyl-2-pentanone	<48	ug/L	48	160	200	U		05/17/2017 20:12	RLD	EPA 8260C
Acetone	200	ug/L	60	200	200	B		05/17/2017 20:12	RLD	EPA 8260C
Benzene	<3.6	ug/L	3.6	12	200	U		05/17/2017 20:12	RLD	EPA 8260C
Bromobenzene	<8.0	ug/L	8.0	30	200	U		05/17/2017 20:12	RLD	EPA 8260C
Bromochloromethane	<6.0	ug/L	6.0	20	200	U		05/17/2017 20:12	RLD	EPA 8260C
Bromodichloromethane	<3.2	ug/L	3.2	11	200	U		05/17/2017 20:12	RLD	EPA 8260C
Bromoform	<8.0	ug/L	8.0	24	200	U		05/17/2017 20:12	RLD	EPA 8260C
Bromomethane	<16	ug/L	16	56	200	U Z		05/17/2017 20:12	RLD	EPA 8260C
Carbon disulfide	<14	ug/L	14	50	200	U		05/17/2017 20:12	RLD	EPA 8260C
Carbon tetrachloride	<10	ug/L	10	36	200	U		05/17/2017 20:12	RLD	EPA 8260C
Chlorobenzene	<8.0	ug/L	8.0	30	200	U		05/17/2017 20:12	RLD	EPA 8260C
Chloroethane	<14	ug/L	14	46	200	U		05/17/2017 20:12	RLD	EPA 8260C
Chloroform	<6.0	ug/L	6.0	22	200	U		05/17/2017 20:12	RLD	EPA 8260C
Chloromethane	<8.0	ug/L	8.0	26	200	U		05/17/2017 20:12	RLD	EPA 8260C
cis-1,2-Dichloroethene	2000	ug/L	14	46	200			05/17/2017 20:12	RLD	EPA 8260C
cis-1,3-Dichloropropene	<2.2	ug/L	2.2	7.6	200	U		05/17/2017 20:12	RLD	EPA 8260C
Dibromochloromethane	<6.0	ug/L	6.0	20	200	U		05/17/2017 20:12	RLD	EPA 8260C
Dibromomethane	<10	ug/L	10	34	200	U		05/17/2017 20:12	RLD	EPA 8260C
Dichlorodifluoromethane	<12	ug/L	12	38	200	U		05/17/2017 20:12	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 866023 Sample Description: MW-105S

DNR License/Well #: 4189/043

Sampled: 05/10/2017 1155

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Diisopropyl ether	<8.0	ug/L	8.0	28	200	U		05/17/2017 20:12	RLD	EPA 8260C
Ethylbenzene	<8.0	ug/L	8.0	30	200	U		05/17/2017 20:12	RLD	EPA 8260C
Hexachlorobutadiene	<10	ug/L	10	32	200	U		05/17/2017 20:12	RLD	EPA 8260C
Isopropylbenzene	<8.0	ug/L	8.0	24	200	U		05/17/2017 20:12	RLD	EPA 8260C
m & p-Xylene	<14	ug/L	14	46	200	U		05/17/2017 20:12	RLD	EPA 8260C
Methyl tert-butyl ether	<8.0	ug/L	8.0	24	200	U		05/17/2017 20:12	RLD	EPA 8260C
Methylene chloride	16	ug/L	10	32	200	J B		05/17/2017 20:12	RLD	EPA 8260C
n-Butylbenzene	<6.0	ug/L	6.0	22	200	U		05/17/2017 20:12	RLD	EPA 8260C
n-Propylbenzene	<8.0	ug/L	8.0	26	200	U		05/17/2017 20:12	RLD	EPA 8260C
Naphthalene	<6.0	ug/L	6.0	20	200	U		05/17/2017 20:12	RLD	EPA 8260C
o-Xylene	<8.0	ug/L	8.0	28	200	U		05/17/2017 20:12	RLD	EPA 8260C
p-Isopropyltoluene	<8.0	ug/L	8.0	26	200	U		05/17/2017 20:12	RLD	EPA 8260C
sec-Butylbenzene	<10	ug/L	10	32	200	U		05/17/2017 20:12	RLD	EPA 8260C
Styrene	<6.0	ug/L	6.0	22	200	U		05/17/2017 20:12	RLD	EPA 8260C
tert-Butylbenzene	<8.0	ug/L	8.0	28	200	U		05/17/2017 20:12	RLD	EPA 8260C
Tetrachloroethene	<10	ug/L	10	36	200	U		05/17/2017 20:12	RLD	EPA 8260C
Tetrahydrofuran	150	ug/L	80	300	200	J B		05/17/2017 20:12	RLD	EPA 8260C
Toluene	<8.0	ug/L	8.0	26	200	U		05/17/2017 20:12	RLD	EPA 8260C
trans-1,2-Dichloroethene	220	ug/L	8.0	28	200			05/17/2017 20:12	RLD	EPA 8260C
trans-1,3-Dichloropropene	<3.8	ug/L	3.8	13	200	U		05/17/2017 20:12	RLD	EPA 8260C
Trichloroethene	1200	ug/L	10	34	200			05/17/2017 20:12	RLD	EPA 8260C
Trichlorofluoromethane	<18	ug/L	18	28	200	U		05/17/2017 20:12	RLD	EPA 8260C
Vinyl acetate	<44	ug/L	44	150	200	U		05/17/2017 20:12	RLD	EPA 8260C
Vinyl chloride	7.9	ug/L	3.8	13	200	J		05/17/2017 20:12	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications

Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
Louisiana NELAP (primary) ID# ACC20160002
Illinois NELAP Lab ID# 200073
Kansas NELAP Lab ID# E-10368
Virginia NELAP Lab ID# 460203
Maryland Lab ID# WI00061
ISO/IEC 17025-2005 A2LA Cert # 3806.01
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID ACC20160002
Pennsylvania NELAP Lab ID# 68-04201, # 008

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase: OCONOMOWOC, WI
 Project #: 117-7413001.01
 Folder #: 127277
 Purchase Order #:
 Contract #: 2747

Page 1 of 2
 Arrival Temperature: 3.2
 Report Date: 05/26/2017
 Date Received: 05/11/2017
 Reprint Date: 05/26/2017

CT LAB#: 866024	Sample Description: MW-105S	DNR License/Well #: 4189/043	Sampled: 05/10/2017 1155
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Metals Results										
Dissolved Iron	1.45	mg/L	0.059	0.20	1			05/12/2017 14:05	NAH	EPA 6010C
Dissolved Manganese	163	ug/L	2.2	7.3	1			05/12/2017 14:05	NAH	EPA 6010C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications

Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
Louisiana NELAP (primary) ID# ACC20160002
Illinois NELAP Lab ID# 200073
Kansas NELAP Lab ID# E-10368
Virginia NELAP Lab ID# 460203
Maryland Lab ID# WI00061
ISO/IEC 17025-2005 A2LA Cert # 3806.01
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID ACC20160002
Pennsylvania NELAP Lab ID# 68-04201, # 008

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase: OCONOMOWOC, WI
 Project #: 117-7413001.01
 Folder #: 127277
 Purchase Order #:
 Contract #: 2747

Page 1 of 5
 Arrival Temperature: 3.2
 Report Date: 05/26/2017
 Date Received: 05/11/2017
 Reprint Date: 05/26/2017

CT LAB#: 866025	Sample Description: MW-105S DUP	DNR License/Well #: 4189/043	Sampled: 05/10/2017 1200
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results										
Alkalinity Total	430	mg/L	10	34	1			05/22/2017 11:10	SAW	EPA 310.2
Total Chloride	200	mg/L	4.2	14	6			05/12/2017 13:35	AGK	EPA 9056A
Total Sulfate	53	mg/L	1.0	3.2	1			05/12/2017 13:07	AGK	EPA 9056A
Total Organic Carbon	4.0	mg/L	0.50	1.7	1			05/17/2017 23:46	AGK	EPA 9060A
Metals Results										
Total Iron	3.22	mg/L	0.034	0.11	1		05/11/2017 15:00	05/12/2017 16:12	NAH	EPA 6010C
Total Manganese	165	ug/L	3.4	11	1		05/11/2017 15:00	05/12/2017 16:12	NAH	EPA 6010C
Organic Results										
Acetylene	<0.23	ug/L	0.23	0.77	1	U	05/18/2017 10:45	05/22/2017 10:58	AGK	Mod RSK 175
Ethane	<0.40	ug/L	0.40	1.2	1	U	05/18/2017 10:45	05/22/2017 10:58	AGK	Mod RSK 175
Ethene	<0.50	ug/L	0.50	1.8	1	U	05/18/2017 10:45	05/22/2017 10:58	AGK	Mod RSK 175
Methane	15	ug/L	0.40	1.2	1		05/18/2017 10:45	05/22/2017 10:58	AGK	Mod RSK 175
1,1,1,2-Tetrachloroethane	<8.0	ug/L	8.0	26	200	U		05/17/2017 20:41	RLD	EPA 8260C
1,1,1-Trichloroethane	<10	ug/L	10	34	200	U		05/17/2017 20:41	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<3.4	ug/L	3.4	11	200	U		05/17/2017 20:41	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 866025 Sample Description: MW-105S DUP

DNR License/Well #: 4189/043

Sampled: 05/10/2017 1200

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,1,2-Trichloroethane	<10	ug/L	10	32	200	U		05/17/2017 20:41	RLD	EPA 8260C
1,1-Dichloroethane	110	ug/L	12	38	200			05/17/2017 20:41	RLD	EPA 8260C
1,1-Dichloroethene	17	ug/L	12	40	200	J		05/17/2017 20:41	RLD	EPA 8260C
1,1-Dichloropropene	<12	ug/L	12	38	200	U		05/17/2017 20:41	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<8.0	ug/L	8.0	26	200	U		05/17/2017 20:41	RLD	EPA 8260C
1,2,3-Trichloropropane	<8.0	ug/L	8.0	28	200	U		05/17/2017 20:41	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<8.0	ug/L	8.0	24	200	U		05/17/2017 20:41	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<8.0	ug/L	8.0	24	200	U		05/17/2017 20:41	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<18	ug/L	18	58	200	U		05/17/2017 20:41	RLD	EPA 8260C
1,2-Dibromoethane	<14	ug/L	14	46	200	U		05/17/2017 20:41	RLD	EPA 8260C
1,2-Dichlorobenzene	<8.0	ug/L	8.0	26	200	U		05/17/2017 20:41	RLD	EPA 8260C
1,2-Dichloroethane	<10	ug/L	10	36	200	U		05/17/2017 20:41	RLD	EPA 8260C
1,2-Dichloropropane	<14	ug/L	14	46	200	U		05/17/2017 20:41	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<10	ug/L	10	32	200	U		05/17/2017 20:41	RLD	EPA 8260C
1,3-Dichlorobenzene	<8.0	ug/L	8.0	26	200	U		05/17/2017 20:41	RLD	EPA 8260C
1,3-Dichloropropane	<8.0	ug/L	8.0	26	200	U		05/17/2017 20:41	RLD	EPA 8260C
1,4-Dichlorobenzene	<8.0	ug/L	8.0	26	200	U		05/17/2017 20:41	RLD	EPA 8260C
1,4-Dioxane	<1400	ug/L	1400	4600	200	U		05/17/2017 20:41	RLD	EPA 8260C
2,2-Dichloropropane	<10	ug/L	10	30	200	U		05/17/2017 20:41	RLD	EPA 8260C
2-Butanone	<100	ug/L	100	300	200	U		05/17/2017 20:41	RLD	EPA 8260C
2-Chlorotoluene	<6.0	ug/L	6.0	22	200	U		05/17/2017 20:41	RLD	EPA 8260C
2-Hexanone	<48	ug/L	48	160	200	U		05/17/2017 20:41	RLD	EPA 8260C
4-Chlorotoluene	<8.0	ug/L	8.0	24	200	U		05/17/2017 20:41	RLD	EPA 8260C
4-Methyl-2-pentanone	<48	ug/L	48	160	200	U		05/17/2017 20:41	RLD	EPA 8260C
Acetone	180	ug/L	60	200	200	J B		05/17/2017 20:41	RLD	EPA 8260C
Benzene	<3.6	ug/L	3.6	12	200	U		05/17/2017 20:41	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 866025 Sample Description: MW-105S DUP

DNR License/Well #: 4189/043

Sampled: 05/10/2017 1200

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Bromobenzene	<8.0	ug/L	8.0	30	200	U		05/17/2017 20:41	RLD	EPA 8260C
Bromochloromethane	<6.0	ug/L	6.0	20	200	U		05/17/2017 20:41	RLD	EPA 8260C
Bromodichloromethane	<3.2	ug/L	3.2	11	200	U		05/17/2017 20:41	RLD	EPA 8260C
Bromoform	<8.0	ug/L	8.0	24	200	U		05/17/2017 20:41	RLD	EPA 8260C
Bromomethane	<16	ug/L	16	56	200	U Z		05/17/2017 20:41	RLD	EPA 8260C
Carbon disulfide	<14	ug/L	14	50	200	U		05/17/2017 20:41	RLD	EPA 8260C
Carbon tetrachloride	<10	ug/L	10	36	200	U		05/17/2017 20:41	RLD	EPA 8260C
Chlorobenzene	<8.0	ug/L	8.0	30	200	U		05/17/2017 20:41	RLD	EPA 8260C
Chloroethane	<14	ug/L	14	46	200	U		05/17/2017 20:41	RLD	EPA 8260C
Chloroform	<6.0	ug/L	6.0	22	200	U		05/17/2017 20:41	RLD	EPA 8260C
Chloromethane	<8.0	ug/L	8.0	26	200	U		05/17/2017 20:41	RLD	EPA 8260C
cis-1,2-Dichloroethene	2100	ug/L	14	46	200			05/17/2017 20:41	RLD	EPA 8260C
cis-1,3-Dichloropropene	<2.2	ug/L	2.2	7.6	200	U		05/17/2017 20:41	RLD	EPA 8260C
Dibromochloromethane	<6.0	ug/L	6.0	20	200	U		05/17/2017 20:41	RLD	EPA 8260C
Dibromomethane	<10	ug/L	10	34	200	U		05/17/2017 20:41	RLD	EPA 8260C
Dichlorodifluoromethane	<12	ug/L	12	38	200	U		05/17/2017 20:41	RLD	EPA 8260C
Diisopropyl ether	<8.0	ug/L	8.0	28	200	U		05/17/2017 20:41	RLD	EPA 8260C
Ethylbenzene	<8.0	ug/L	8.0	30	200	U		05/17/2017 20:41	RLD	EPA 8260C
Hexachlorobutadiene	<10	ug/L	10	32	200	U		05/17/2017 20:41	RLD	EPA 8260C
Isopropylbenzene	<8.0	ug/L	8.0	24	200	U		05/17/2017 20:41	RLD	EPA 8260C
m & p-Xylene	<14	ug/L	14	46	200	U		05/17/2017 20:41	RLD	EPA 8260C
Methyl tert-butyl ether	<8.0	ug/L	8.0	24	200	U		05/17/2017 20:41	RLD	EPA 8260C
Methylene chloride	13	ug/L	10	32	200	J B		05/17/2017 20:41	RLD	EPA 8260C
n-Butylbenzene	<6.0	ug/L	6.0	22	200	U		05/17/2017 20:41	RLD	EPA 8260C
n-Propylbenzene	<8.0	ug/L	8.0	26	200	U		05/17/2017 20:41	RLD	EPA 8260C
Naphthalene	<6.0	ug/L	6.0	20	200	U		05/17/2017 20:41	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 866025 Sample Description: MW-105S DUP

DNR License/Well #: 4189/043

Sampled: 05/10/2017 1200

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
o-Xylene	<8.0	ug/L	8.0	28	200	U		05/17/2017 20:41	RLD	EPA 8260C
p-Isopropyltoluene	<8.0	ug/L	8.0	26	200	U		05/17/2017 20:41	RLD	EPA 8260C
sec-Butylbenzene	<10	ug/L	10	32	200	U		05/17/2017 20:41	RLD	EPA 8260C
Styrene	<6.0	ug/L	6.0	22	200	U		05/17/2017 20:41	RLD	EPA 8260C
tert-Butylbenzene	<8.0	ug/L	8.0	28	200	U		05/17/2017 20:41	RLD	EPA 8260C
Tetrachloroethene	<10	ug/L	10	36	200	U		05/17/2017 20:41	RLD	EPA 8260C
Tetrahydrofuran	150	ug/L	80	300	200	J B		05/17/2017 20:41	RLD	EPA 8260C
Toluene	<8.0	ug/L	8.0	26	200	U		05/17/2017 20:41	RLD	EPA 8260C
trans-1,2-Dichloroethene	240	ug/L	8.0	28	200			05/17/2017 20:41	RLD	EPA 8260C
trans-1,3-Dichloropropene	<3.8	ug/L	3.8	13	200	U		05/17/2017 20:41	RLD	EPA 8260C
Trichloroethene	1200	ug/L	10	34	200			05/17/2017 20:41	RLD	EPA 8260C
Trichlorofluoromethane	<18	ug/L	18	28	200	U		05/17/2017 20:41	RLD	EPA 8260C
Vinyl acetate	<44	ug/L	44	150	200	U		05/17/2017 20:41	RLD	EPA 8260C
Vinyl chloride	6.1	ug/L	3.8	13	200	J		05/17/2017 20:41	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications
Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
Louisiana NELAP (primary) ID# ACC20160002
Illinois NELAP Lab ID# 200073
Kansas NELAP Lab ID# E-10368
Virginia NELAP Lab ID# 460203
Maryland Lab ID# WI00061
ISO/IEC 17025-2005 A2LA Cert # 3806.01
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID ACC20160002
Pennsylvania NELAP Lab ID# 68-04201, # 008

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase: OCONOMOWOC, WI
 Project #: 117-7413001.01
 Folder #: 127277
 Purchase Order #:
 Contract #: 2747

Page 1 of 2
 Arrival Temperature: 3.2
 Report Date: 05/26/2017
 Date Received: 05/11/2017
 Reprint Date: 05/26/2017

CT LAB#: 866026	Sample Description: MW-105S DUP	DNR License/Well #: 4189/043	Sampled: 05/10/2017 1200
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Metals Results										
Dissolved Iron	1.46	mg/L	0.059	0.20	1			05/12/2017 14:11	NAH	EPA 6010C
Dissolved Manganese	163	ug/L	2.2	7.3	1			05/12/2017 14:11	NAH	EPA 6010C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications
Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
Louisiana NELAP (primary) ID# ACC20160002
Illinois NELAP Lab ID# 200073
Kansas NELAP Lab ID# E-10368
Virginia NELAP Lab ID# 460203
Maryland Lab ID# WI00061
ISO/IEC 17025-2005 A2LA Cert # 3806.01
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID ACC20160002
Pennsylvania NELAP Lab ID# 68-04201, # 008

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase: OCONOMOWOC, WI
 Project #: 117-7413001.01
 Folder #: 127277
 Purchase Order #:
 Contract #: 2747

Page 1 of 5
 Arrival Temperature: 3.2
 Report Date: 05/26/2017
 Date Received: 05/11/2017
 Reprint Date: 05/26/2017

CT LAB#: 866027	Sample Description: MW-1S	DNR License/Well #: 4189/001	Sampled: 05/10/2017 1315
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Field Results										
Dissolved Oxygen (Field)	3.30	mg/L	N/A	N/A	1			05/24/2017 00:00	BMS	
OX/REDOX (Field)	-43	MV	N/A	N/A	1			05/24/2017 00:00	BMS	
Color (Field)	CLEAR		N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Conductivity (Field)	895	umhos/cm	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Groundwater Elevation (Field)	847.85	Feet MSL	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
pH (Field)	7.36	S.U.	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Temperature (Field)	16.12	Deg. C	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Turbidity (Field)	NO		N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Inorganic Results										
Alkalinity Total	370	mg/L	10	34	1			05/22/2017 11:11	SAW	EPA 310.2
Total Chloride	150	mg/L	3.5	12	5			05/12/2017 14:23	AGK	EPA 9056A
Total Sulfate	50	mg/L	1.0	3.2	1			05/12/2017 14:02	AGK	EPA 9056A
Total Organic Carbon	2.6	mg/L	0.50	1.7	1			05/17/2017 23:58	AGK	EPA 9060A
Metals Results										
Total Iron	1.23	mg/L	0.034	0.11	1		05/11/2017 15:00	05/12/2017 16:19	NAH	EPA 6010C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

The groundwater elevation listed above is from the May 2016 sampling round and therefore incorrect for this round.

CT LAB#: 866027 Sample Description:MW-1S

DNR License/Well #: 4189/001

Sampled: 05/10/2017 1315

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Total Manganese	75.7	ug/L	3.4	11	1		05/11/2017 15:00	05/12/2017 16:19	NAH	EPA 6010C
Organic Results										
Acetylene	<0.23	ug/L	0.23	0.77	1	U	05/18/2017 10:45	05/22/2017 10:46	AGK	Mod RSK 175
Ethane	<0.40	ug/L	0.40	1.2	1	U	05/18/2017 10:45	05/22/2017 10:46	AGK	Mod RSK 175
Ethene	<0.50	ug/L	0.50	1.8	1	U	05/18/2017 10:45	05/22/2017 10:46	AGK	Mod RSK 175
Methane	2.1	ug/L	0.40	1.2	1		05/18/2017 10:45	05/22/2017 10:46	AGK	Mod RSK 175
1,1,1,2-Tetrachloroethane	<0.040	ug/L	0.040	0.13	1	U		05/16/2017 21:38	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.050	ug/L	0.050	0.17	1	U		05/16/2017 21:38	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.017	ug/L	0.017	0.057	1	U		05/16/2017 21:38	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.050	ug/L	0.050	0.16	1	U		05/16/2017 21:38	RLD	EPA 8260C
1,1-Dichloroethane	<0.060	ug/L	0.060	0.19	1	U		05/16/2017 21:38	RLD	EPA 8260C
1,1-Dichloroethene	<0.060	ug/L	0.060	0.20	1	U		05/16/2017 21:38	RLD	EPA 8260C
1,1-Dichloropropene	<0.060	ug/L	0.060	0.19	1	U		05/16/2017 21:38	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/16/2017 21:38	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.040	ug/L	0.040	0.14	1	U		05/16/2017 21:38	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.040	ug/L	0.040	0.12	1	U		05/16/2017 21:38	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.040	ug/L	0.040	0.12	1	U		05/16/2017 21:38	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.090	ug/L	0.090	0.29	1	U		05/16/2017 21:38	RLD	EPA 8260C
1,2-Dibromoethane	<0.070	ug/L	0.070	0.23	1	U		05/16/2017 21:38	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/16/2017 21:38	RLD	EPA 8260C
1,2-Dichloroethane	<0.050	ug/L	0.050	0.18	1	U		05/16/2017 21:38	RLD	EPA 8260C
1,2-Dichloropropane	<0.070	ug/L	0.070	0.23	1	U		05/16/2017 21:38	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<0.050	ug/L	0.050	0.16	1	U		05/16/2017 21:38	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/16/2017 21:38	RLD	EPA 8260C
1,3-Dichloropropane	<0.040	ug/L	0.040	0.13	1	U		05/16/2017 21:38	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 866027 Sample Description: MW-1S

DNR License/Well #: 4189/001

Sampled: 05/10/2017 1315

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,4-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/16/2017 21:38	RLD	EPA 8260C
1,4-Dioxane	<7.0	ug/L	7.0	23	1	U		05/16/2017 21:38	RLD	EPA 8260C
2,2-Dichloropropane	<0.050	ug/L	0.050	0.15	1	U		05/16/2017 21:38	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.5	1	U		05/16/2017 21:38	RLD	EPA 8260C
2-Chlorotoluene	<0.030	ug/L	0.030	0.11	1	U		05/16/2017 21:38	RLD	EPA 8260C
2-Hexanone	<0.24	ug/L	0.24	0.81	1	U		05/16/2017 21:38	RLD	EPA 8260C
4-Chlorotoluene	<0.040	ug/L	0.040	0.12	1	U		05/16/2017 21:38	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.24	ug/L	0.24	0.82	1	U		05/16/2017 21:38	RLD	EPA 8260C
Acetone	5.1	ug/L	0.30	1.0	1	B		05/16/2017 21:38	RLD	EPA 8260C
Benzene	<0.018	ug/L	0.018	0.059	1	U		05/16/2017 21:38	RLD	EPA 8260C
Bromobenzene	<0.040	ug/L	0.040	0.15	1	U		05/16/2017 21:38	RLD	EPA 8260C
Bromochloromethane	<0.030	ug/L	0.030	0.099	1	U		05/16/2017 21:38	RLD	EPA 8260C
Bromodichloromethane	<0.016	ug/L	0.016	0.054	1	U		05/16/2017 21:38	RLD	EPA 8260C
Bromoform	<0.040	ug/L	0.040	0.12	1	U		05/16/2017 21:38	RLD	EPA 8260C
Bromomethane	<0.080	ug/L	0.080	0.28	1	U		05/16/2017 21:38	RLD	EPA 8260C
Carbon disulfide	<0.070	ug/L	0.070	0.25	1	U		05/16/2017 21:38	RLD	EPA 8260C
Carbon tetrachloride	<0.050	ug/L	0.050	0.18	1	U		05/16/2017 21:38	RLD	EPA 8260C
Chlorobenzene	<0.040	ug/L	0.040	0.15	1	U		05/16/2017 21:38	RLD	EPA 8260C
Chloroethane	<0.070	ug/L	0.070	0.23	1	U		05/16/2017 21:38	RLD	EPA 8260C
Chloroform	<0.030	ug/L	0.030	0.11	1	U		05/16/2017 21:38	RLD	EPA 8260C
Chloromethane	0.10	ug/L	0.040	0.13	1	J B		05/16/2017 21:38	RLD	EPA 8260C
cis-1,2-Dichloroethene	<0.070	ug/L	0.070	0.23	1	U		05/16/2017 21:38	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.011	ug/L	0.011	0.038	1	U		05/16/2017 21:38	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1	U		05/16/2017 21:38	RLD	EPA 8260C
Dibromomethane	<0.050	ug/L	0.050	0.17	1	U		05/16/2017 21:38	RLD	EPA 8260C
Dichlorodifluoromethane	<0.060	ug/L	0.060	0.19	1	U		05/16/2017 21:38	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 866027 Sample Description:MW-1S

DNR License/Well #: 4189/001

Sampled: 05/10/2017 1315

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Diisopropyl ether	<0.040	ug/L	0.040	0.14	1	U	05/16/2017 21:38	05/16/2017 21:38	RLD	EPA 8260C
Ethylbenzene	<0.040	ug/L	0.040	0.15	1	U	05/16/2017 21:38	05/16/2017 21:38	RLD	EPA 8260C
Hexachlorobutadiene	<0.050	ug/L	0.050	0.16	1	U	05/16/2017 21:38	05/16/2017 21:38	RLD	EPA 8260C
Isopropylbenzene	<0.040	ug/L	0.040	0.12	1	U	05/16/2017 21:38	05/16/2017 21:38	RLD	EPA 8260C
m & p-Xylene	<0.070	ug/L	0.070	0.23	1	U	05/16/2017 21:38	05/16/2017 21:38	RLD	EPA 8260C
Methyl tert-butyl ether	<0.040	ug/L	0.040	0.12	1	U	05/16/2017 21:38	05/16/2017 21:38	RLD	EPA 8260C
Methylene chloride	<0.050	ug/L	0.050	0.16	1	U	05/16/2017 21:38	05/16/2017 21:38	RLD	EPA 8260C
n-Butylbenzene	<0.030	ug/L	0.030	0.11	1	U	05/16/2017 21:38	05/16/2017 21:38	RLD	EPA 8260C
n-Propylbenzene	<0.040	ug/L	0.040	0.13	1	U	05/16/2017 21:38	05/16/2017 21:38	RLD	EPA 8260C
Naphthalene	<0.030	ug/L	0.030	0.10	1	U	05/16/2017 21:38	05/16/2017 21:38	RLD	EPA 8260C
o-Xylene	<0.040	ug/L	0.040	0.14	1	U	05/16/2017 21:38	05/16/2017 21:38	RLD	EPA 8260C
p-Isopropyltoluene	<0.040	ug/L	0.040	0.13	1	U	05/16/2017 21:38	05/16/2017 21:38	RLD	EPA 8260C
sec-Butylbenzene	<0.050	ug/L	0.050	0.16	1	U	05/16/2017 21:38	05/16/2017 21:38	RLD	EPA 8260C
Styrene	<0.030	ug/L	0.030	0.11	1	U	05/16/2017 21:38	05/16/2017 21:38	RLD	EPA 8260C
tert-Butylbenzene	<0.040	ug/L	0.040	0.14	1	U	05/16/2017 21:38	05/16/2017 21:38	RLD	EPA 8260C
Tetrachloroethene	<0.050	ug/L	0.050	0.18	1	U	05/16/2017 21:38	05/16/2017 21:38	RLD	EPA 8260C
Tetrahydrofuran	<0.40	ug/L	0.40	1.5	1	U	05/16/2017 21:38	05/16/2017 21:38	RLD	EPA 8260C
Toluene	<0.040	ug/L	0.040	0.13	1	U	05/16/2017 21:38	05/16/2017 21:38	RLD	EPA 8260C
trans-1,2-Dichloroethene	<0.040	ug/L	0.040	0.14	1	U	05/16/2017 21:38	05/16/2017 21:38	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.019	ug/L	0.019	0.063	1	U	05/16/2017 21:38	05/16/2017 21:38	RLD	EPA 8260C
Trichloroethene	0.15	ug/L	0.050	0.17	1	J	05/16/2017 21:38	05/16/2017 21:38	RLD	EPA 8260C
Trichlorofluoromethane	<0.090	ug/L	0.090	0.14	1	U	05/16/2017 21:38	05/16/2017 21:38	RLD	EPA 8260C
Vinyl acetate	<0.22	ug/L	0.22	0.73	1	U	05/16/2017 21:38	05/16/2017 21:38	RLD	EPA 8260C
Vinyl chloride	<0.019	ug/L	0.019	0.064	1	U	05/16/2017 21:38	05/16/2017 21:38	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications

Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
Louisiana NELAP (primary) ID# ACC20160002
Illinois NELAP Lab ID# 200073
Kansas NELAP Lab ID# E-10368
Virginia NELAP Lab ID# 460203
Maryland Lab ID# WI00061
ISO/IEC 17025-2005 A2LA Cert # 3806.01
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID ACC20160002
Pennsylvania NELAP Lab ID# 68-04201, # 008

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase: OCONOMOWOC, WI
 Project #: 117-7413001.01
 Folder #: 127277
 Purchase Order #:
 Contract #: 2747

Page 1 of 2
 Arrival Temperature: 3.2
 Report Date: 05/26/2017
 Date Received: 05/11/2017
 Reprint Date: 05/26/2017

CT LAB#: 866028	Sample Description: MW-1S	DNR License/Well #: 4189/001	Sampled: 05/10/2017 1315
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Metals Results										
Dissolved Iron	0.945	mg/L	0.059	0.20	1			05/12/2017 14:18	NAH	EPA 6010C
Dissolved Manganese	70.8	ug/L	2.2	7.3	1			05/12/2017 14:18	NAH	EPA 6010C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications

Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
Louisiana NELAP (primary) ID# ACC20160002
Illinois NELAP Lab ID# 200073
Kansas NELAP Lab ID# E-10368
Virginia NELAP Lab ID# 460203
Maryland Lab ID# WI00061
ISO/IEC 17025-2005 A2LA Cert # 3806.01
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID ACC20160002
Pennsylvania NELAP Lab ID# 68-04201, # 008

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase: OCONOMOWOC, WI
 Project #: 117-7413001.01
 Folder #: 127277
 Purchase Order #:
 Contract #: 2747

Page 1 of 5
 Arrival Temperature: 3.2
 Report Date: 05/26/2017
 Date Received: 05/11/2017
 Reprint Date: 05/26/2017

CT LAB#: 866029	Sample Description: MW-1D	DNR License/Well #: 4189/002	Sampled: 05/10/2017 1350
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Field Results										
Dissolved Oxygen (Field)	0.09	mg/L	N/A	N/A	1			05/24/2017 00:00	BMS	
OX/REDOX (Field)	-124	MV	N/A	N/A	1			05/24/2017 00:00	BMS	
Color (Field)	CLEAR		N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Conductivity (Field)	504	umhos/cm	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Groundwater Elevation (Field)	848.07	Feet MSL	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
pH (Field)	7.54	S.U.	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Temperature (Field)	14.61	Deg. C	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Turbidity (Field)	NO		N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Inorganic Results										
Alkalinity Total	380	mg/L	10	34	1			05/22/2017 11:12	SAW	EPA 310.2
Total Chloride	5.1	mg/L	0.70	2.4	1			05/12/2017 14:50	AGK	EPA 9056A
Total Sulfate	<1.0	mg/L	1.0	3.2	1	U		05/12/2017 14:50	AGK	EPA 9056A
Total Organic Carbon	2.0	mg/L	0.50	1.7	1			05/18/2017 00:59	AGK	EPA 9060A
Metals Results										
Total Iron	2.01	mg/L	0.034	0.11	1		05/11/2017 15:00	05/12/2017 16:45	NAH	EPA 6010C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis
 The groundwater elevation listed above is from the May 2016 sampling round and therefore incorrect for this round.

CT LAB#: 866029 Sample Description:MW-1D

DNR License/Well #: 4189/002

Sampled: 05/10/2017 1350

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Total Manganese	5.8	ug/L	3.4	11	1	J	05/11/2017 15:00	05/12/2017 16:45	NAH	EPA 6010C
Organic Results										
Acetylene	<0.23	ug/L	0.23	0.77	1	U	05/18/2017 10:45	05/22/2017 10:24	AGK	Mod RSK 175
Ethane	<0.40	ug/L	0.40	1.2	1	U	05/18/2017 10:45	05/22/2017 10:24	AGK	Mod RSK 175
Ethene	<0.50	ug/L	0.50	1.8	1	U	05/18/2017 10:45	05/22/2017 10:24	AGK	Mod RSK 175
Methane	170	ug/L	4.0	12	10		05/18/2017 10:45	05/22/2017 10:33	AGK	Mod RSK 175
1,1,1,2-Tetrachloroethane	<0.040	ug/L	0.040	0.13	1	U		05/16/2017 22:07	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.050	ug/L	0.050	0.17	1	U		05/16/2017 22:07	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.017	ug/L	0.017	0.057	1	U		05/16/2017 22:07	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.050	ug/L	0.050	0.16	1	U		05/16/2017 22:07	RLD	EPA 8260C
1,1-Dichloroethane	<0.060	ug/L	0.060	0.19	1	U		05/16/2017 22:07	RLD	EPA 8260C
1,1-Dichloroethene	<0.060	ug/L	0.060	0.20	1	U		05/16/2017 22:07	RLD	EPA 8260C
1,1-Dichloropropene	<0.060	ug/L	0.060	0.19	1	U		05/16/2017 22:07	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/16/2017 22:07	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.040	ug/L	0.040	0.14	1	U		05/16/2017 22:07	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.040	ug/L	0.040	0.12	1	U		05/16/2017 22:07	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.040	ug/L	0.040	0.12	1	U		05/16/2017 22:07	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.090	ug/L	0.090	0.29	1	U		05/16/2017 22:07	RLD	EPA 8260C
1,2-Dibromoethane	<0.070	ug/L	0.070	0.23	1	U		05/16/2017 22:07	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/16/2017 22:07	RLD	EPA 8260C
1,2-Dichloroethane	<0.050	ug/L	0.050	0.18	1	U		05/16/2017 22:07	RLD	EPA 8260C
1,2-Dichloropropane	<0.070	ug/L	0.070	0.23	1	U		05/16/2017 22:07	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<0.050	ug/L	0.050	0.16	1	U		05/16/2017 22:07	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/16/2017 22:07	RLD	EPA 8260C
1,3-Dichloropropane	<0.040	ug/L	0.040	0.13	1	U		05/16/2017 22:07	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 866029 Sample Description:MW-1D

DNR License/Well #: 4189/002

Sampled: 05/10/2017 1350

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,4-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/16/2017 22:07	RLD	EPA 8260C
1,4-Dioxane	<7.0	ug/L	7.0	23	1	U		05/16/2017 22:07	RLD	EPA 8260C
2,2-Dichloropropane	<0.050	ug/L	0.050	0.15	1	U		05/16/2017 22:07	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.5	1	U		05/16/2017 22:07	RLD	EPA 8260C
2-Chlorotoluene	<0.030	ug/L	0.030	0.11	1	U		05/16/2017 22:07	RLD	EPA 8260C
2-Hexanone	<0.24	ug/L	0.24	0.81	1	U		05/16/2017 22:07	RLD	EPA 8260C
4-Chlorotoluene	<0.040	ug/L	0.040	0.12	1	U		05/16/2017 22:07	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.24	ug/L	0.24	0.82	1	U		05/16/2017 22:07	RLD	EPA 8260C
Acetone	0.34	ug/L	0.30	1.0	1	J B		05/16/2017 22:07	RLD	EPA 8260C
Benzene	0.091	ug/L	0.018	0.059	1			05/16/2017 22:07	RLD	EPA 8260C
Bromobenzene	<0.040	ug/L	0.040	0.15	1	U		05/16/2017 22:07	RLD	EPA 8260C
Bromochloromethane	<0.030	ug/L	0.030	0.099	1	U		05/16/2017 22:07	RLD	EPA 8260C
Bromodichloromethane	<0.016	ug/L	0.016	0.054	1	U		05/16/2017 22:07	RLD	EPA 8260C
Bromoform	<0.040	ug/L	0.040	0.12	1	U		05/16/2017 22:07	RLD	EPA 8260C
Bromomethane	<0.080	ug/L	0.080	0.28	1	U		05/16/2017 22:07	RLD	EPA 8260C
Carbon disulfide	<0.070	ug/L	0.070	0.25	1	U		05/16/2017 22:07	RLD	EPA 8260C
Carbon tetrachloride	<0.050	ug/L	0.050	0.18	1	U		05/16/2017 22:07	RLD	EPA 8260C
Chlorobenzene	<0.040	ug/L	0.040	0.15	1	U		05/16/2017 22:07	RLD	EPA 8260C
Chloroethane	<0.070	ug/L	0.070	0.23	1	U		05/16/2017 22:07	RLD	EPA 8260C
Chloroform	<0.030	ug/L	0.030	0.11	1	U		05/16/2017 22:07	RLD	EPA 8260C
Chloromethane	0.041	ug/L	0.040	0.13	1	J B		05/16/2017 22:07	RLD	EPA 8260C
cis-1,2-Dichloroethene	<0.070	ug/L	0.070	0.23	1	U		05/16/2017 22:07	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.011	ug/L	0.011	0.038	1	U		05/16/2017 22:07	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1	U		05/16/2017 22:07	RLD	EPA 8260C
Dibromomethane	<0.050	ug/L	0.050	0.17	1	U		05/16/2017 22:07	RLD	EPA 8260C
Dichlorodifluoromethane	<0.060	ug/L	0.060	0.19	1	U		05/16/2017 22:07	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 866029 Sample Description:MW-1D

DNR License/Well #: 4189/002

Sampled: 05/10/2017 1350

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Diisopropyl ether	<0.040	ug/L	0.040	0.14	1	U	05/16/2017 22:07	05/16/2017 22:07	RLD	EPA 8260C
Ethylbenzene	0.040	ug/L	0.040	0.15	1	J	05/16/2017 22:07	05/16/2017 22:07	RLD	EPA 8260C
Hexachlorobutadiene	<0.050	ug/L	0.050	0.16	1	U	05/16/2017 22:07	05/16/2017 22:07	RLD	EPA 8260C
Isopropylbenzene	0.043	ug/L	0.040	0.12	1	J	05/16/2017 22:07	05/16/2017 22:07	RLD	EPA 8260C
m & p-Xylene	<0.070	ug/L	0.070	0.23	1	U	05/16/2017 22:07	05/16/2017 22:07	RLD	EPA 8260C
Methyl tert-butyl ether	<0.040	ug/L	0.040	0.12	1	U	05/16/2017 22:07	05/16/2017 22:07	RLD	EPA 8260C
Methylene chloride	<0.050	ug/L	0.050	0.16	1	U	05/16/2017 22:07	05/16/2017 22:07	RLD	EPA 8260C
n-Butylbenzene	<0.030	ug/L	0.030	0.11	1	U	05/16/2017 22:07	05/16/2017 22:07	RLD	EPA 8260C
n-Propylbenzene	<0.040	ug/L	0.040	0.13	1	U	05/16/2017 22:07	05/16/2017 22:07	RLD	EPA 8260C
Naphthalene	0.044	ug/L	0.030	0.10	1	J	05/16/2017 22:07	05/16/2017 22:07	RLD	EPA 8260C
o-Xylene	<0.040	ug/L	0.040	0.14	1	U	05/16/2017 22:07	05/16/2017 22:07	RLD	EPA 8260C
p-Isopropyltoluene	<0.040	ug/L	0.040	0.13	1	U	05/16/2017 22:07	05/16/2017 22:07	RLD	EPA 8260C
sec-Butylbenzene	<0.050	ug/L	0.050	0.16	1	U	05/16/2017 22:07	05/16/2017 22:07	RLD	EPA 8260C
Styrene	0.078	ug/L	0.030	0.11	1	J	05/16/2017 22:07	05/16/2017 22:07	RLD	EPA 8260C
tert-Butylbenzene	<0.040	ug/L	0.040	0.14	1	U	05/16/2017 22:07	05/16/2017 22:07	RLD	EPA 8260C
Tetrachloroethene	<0.050	ug/L	0.050	0.18	1	U	05/16/2017 22:07	05/16/2017 22:07	RLD	EPA 8260C
Tetrahydrofuran	<0.40	ug/L	0.40	1.5	1	U	05/16/2017 22:07	05/16/2017 22:07	RLD	EPA 8260C
Toluene	<0.040	ug/L	0.040	0.13	1	U	05/16/2017 22:07	05/16/2017 22:07	RLD	EPA 8260C
trans-1,2-Dichloroethene	<0.040	ug/L	0.040	0.14	1	U	05/16/2017 22:07	05/16/2017 22:07	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.019	ug/L	0.019	0.063	1	U	05/16/2017 22:07	05/16/2017 22:07	RLD	EPA 8260C
Trichloroethene	<0.050	ug/L	0.050	0.17	1	U	05/16/2017 22:07	05/16/2017 22:07	RLD	EPA 8260C
Trichlorofluoromethane	<0.090	ug/L	0.090	0.14	1	U	05/16/2017 22:07	05/16/2017 22:07	RLD	EPA 8260C
Vinyl acetate	<0.22	ug/L	0.22	0.73	1	U	05/16/2017 22:07	05/16/2017 22:07	RLD	EPA 8260C
Vinyl chloride	0.078	ug/L	0.019	0.064	1		05/16/2017 22:07	05/16/2017 22:07	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

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Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications

Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
Louisiana NELAP (primary) ID# ACC20160002
Illinois NELAP Lab ID# 200073
Kansas NELAP Lab ID# E-10368
Virginia NELAP Lab ID# 460203
Maryland Lab ID# WI00061
ISO/IEC 17025-2005 A2LA Cert # 3806.01
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID ACC20160002
Pennsylvania NELAP Lab ID# 68-04201, # 008

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase: OCONOMOWOC, WI
 Project #: 117-7413001.01
 Folder #: 127277
 Purchase Order #:
 Contract #: 2747

Page 1 of 2
 Arrival Temperature: 3.2
 Report Date: 05/26/2017
 Date Received: 05/11/2017
 Reprint Date: 05/26/2017

CT LAB#: 866030	Sample Description: MW-1D	DNR License/Well #: 4189/002	Sampled: 05/10/2017 1350
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Metals Results										
Dissolved Iron	1.79	mg/L	0.059	0.20	1			05/12/2017 14:25	NAH	EPA 6010C
Dissolved Manganese	5.8	ug/L	2.2	7.3	1	J		05/12/2017 14:25	NAH	EPA 6010C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

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Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

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Wisconsin (DATCP) Bacteriology ID# 105-289
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Illinois NELAP Lab ID# 200073
Kansas NELAP Lab ID# E-10368
Virginia NELAP Lab ID# 460203
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ISO/IEC 17025-2005 A2LA Cert # 3806.01
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID ACC20160002
Pennsylvania NELAP Lab ID# 68-04201, # 008

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase: OCONOMOWOC, WI
 Project #: 117-7413001.01
 Folder #: 127277
 Purchase Order #:
 Contract #: 2747

Page 1 of 5
 Arrival Temperature: 3.2
 Report Date: 05/26/2017
 Date Received: 05/11/2017
 Reprint Date: 05/26/2017

CT LAB#: 866031	Sample Description: MW-2D	DNR License/Well #: 4189/004	Sampled: 05/10/2017 1440
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Field Results										
Dissolved Oxygen (Field)	3.56	mg/L	N/A	N/A	1			05/24/2017 00:00	BMS	
OX/REDOX (Field)	165	MV	N/A	N/A	1			05/24/2017 00:00	BMS	
Color (Field)	CLEAR		N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Conductivity (Field)	1110	umhos/cm	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Groundwater Elevation (Field)	847.33	Feet MSL	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
pH (Field)	7.36	S.U.	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Temperature (Field)	10.56	Deg. C	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Turbidity (Field)	NO		N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Inorganic Results										
Alkalinity Total	400	mg/L	10	34	1			05/22/2017 11:13	SAW	EPA 310.2
Total Chloride	170	mg/L	3.5	12	5			05/12/2017 15:32	AGK	EPA 9056A
Total Sulfate	43	mg/L	1.0	3.2	1			05/12/2017 15:11	AGK	EPA 9056A
Total Organic Carbon	3.2	mg/L	0.50	1.7	1			05/18/2017 01:12	AGK	EPA 9060A
Metals Results										
Total Iron	0.485	mg/L	0.034	0.11	1		05/11/2017 15:00	05/12/2017 16:52	NAH	EPA 6010C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis
 The groundwater elevation listed above is from the May 2016 sampling round and therefore incorrect for this round.

CT LAB#: 866031 Sample Description: MW-2D

DNR License/Well #: 4189/004

Sampled: 05/10/2017 1440

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Total Manganese	5.4	ug/L	3.4	11	1	J	05/11/2017 15:00	05/12/2017 16:52	NAH	EPA 6010C
Organic Results										
Acetylene	<0.23	ug/L	0.23	0.77	1	U	05/18/2017 10:45	05/22/2017 10:10	AGK	Mod RSK 175
Ethane	<0.40	ug/L	0.40	1.2	1	U	05/18/2017 10:45	05/22/2017 10:10	AGK	Mod RSK 175
Ethene	<0.50	ug/L	0.50	1.8	1	U	05/18/2017 10:45	05/22/2017 10:10	AGK	Mod RSK 175
Methane	7.0	ug/L	0.40	1.2	1		05/18/2017 10:45	05/22/2017 10:10	AGK	Mod RSK 175
1,1,1,2-Tetrachloroethane	<0.040	ug/L	0.040	0.13	1	U		05/16/2017 22:35	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.050	ug/L	0.050	0.17	1	U		05/16/2017 22:35	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.017	ug/L	0.017	0.057	1	U		05/16/2017 22:35	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.050	ug/L	0.050	0.16	1	U		05/16/2017 22:35	RLD	EPA 8260C
1,1-Dichloroethane	0.15	ug/L	0.060	0.19	1	J		05/16/2017 22:35	RLD	EPA 8260C
1,1-Dichloroethene	<0.060	ug/L	0.060	0.20	1	U		05/16/2017 22:35	RLD	EPA 8260C
1,1-Dichloropropene	<0.060	ug/L	0.060	0.19	1	U		05/16/2017 22:35	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/16/2017 22:35	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.040	ug/L	0.040	0.14	1	U		05/16/2017 22:35	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.040	ug/L	0.040	0.12	1	U		05/16/2017 22:35	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.040	ug/L	0.040	0.12	1	U		05/16/2017 22:35	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.090	ug/L	0.090	0.29	1	U		05/16/2017 22:35	RLD	EPA 8260C
1,2-Dibromoethane	<0.070	ug/L	0.070	0.23	1	U		05/16/2017 22:35	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/16/2017 22:35	RLD	EPA 8260C
1,2-Dichloroethane	<0.050	ug/L	0.050	0.18	1	U		05/16/2017 22:35	RLD	EPA 8260C
1,2-Dichloropropane	<0.070	ug/L	0.070	0.23	1	U		05/16/2017 22:35	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<0.050	ug/L	0.050	0.16	1	U		05/16/2017 22:35	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/16/2017 22:35	RLD	EPA 8260C
1,3-Dichloropropane	<0.040	ug/L	0.040	0.13	1	U		05/16/2017 22:35	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 866031 Sample Description:MW-2D

DNR License/Well #: 4189/004

Sampled: 05/10/2017 1440

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,4-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/16/2017 22:35	RLD	EPA 8260C
1,4-Dioxane	9.7	ug/L	7.0	23	1	J		05/16/2017 22:35	RLD	EPA 8260C
2,2-Dichloropropane	<0.050	ug/L	0.050	0.15	1	U		05/16/2017 22:35	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.5	1	U		05/16/2017 22:35	RLD	EPA 8260C
2-Chlorotoluene	<0.030	ug/L	0.030	0.11	1	U		05/16/2017 22:35	RLD	EPA 8260C
2-Hexanone	<0.24	ug/L	0.24	0.81	1	U		05/16/2017 22:35	RLD	EPA 8260C
4-Chlorotoluene	<0.040	ug/L	0.040	0.12	1	U		05/16/2017 22:35	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.24	ug/L	0.24	0.82	1	U		05/16/2017 22:35	RLD	EPA 8260C
Acetone	0.46	ug/L	0.30	1.0	1	J B		05/16/2017 22:35	RLD	EPA 8260C
Benzene	<0.018	ug/L	0.018	0.059	1	U		05/16/2017 22:35	RLD	EPA 8260C
Bromobenzene	<0.040	ug/L	0.040	0.15	1	U		05/16/2017 22:35	RLD	EPA 8260C
Bromochloromethane	<0.030	ug/L	0.030	0.099	1	U		05/16/2017 22:35	RLD	EPA 8260C
Bromodichloromethane	<0.016	ug/L	0.016	0.054	1	U		05/16/2017 22:35	RLD	EPA 8260C
Bromoform	<0.040	ug/L	0.040	0.12	1	U		05/16/2017 22:35	RLD	EPA 8260C
Bromomethane	<0.080	ug/L	0.080	0.28	1	U		05/16/2017 22:35	RLD	EPA 8260C
Carbon disulfide	<0.070	ug/L	0.070	0.25	1	U		05/16/2017 22:35	RLD	EPA 8260C
Carbon tetrachloride	<0.050	ug/L	0.050	0.18	1	U		05/16/2017 22:35	RLD	EPA 8260C
Chlorobenzene	<0.040	ug/L	0.040	0.15	1	U		05/16/2017 22:35	RLD	EPA 8260C
Chloroethane	<0.070	ug/L	0.070	0.23	1	U		05/16/2017 22:35	RLD	EPA 8260C
Chloroform	<0.030	ug/L	0.030	0.11	1	U		05/16/2017 22:35	RLD	EPA 8260C
Chloromethane	0.044	ug/L	0.040	0.13	1	J B		05/16/2017 22:35	RLD	EPA 8260C
cis-1,2-Dichloroethene	0.17	ug/L	0.070	0.23	1	J		05/16/2017 22:35	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.011	ug/L	0.011	0.038	1	U		05/16/2017 22:35	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1	U		05/16/2017 22:35	RLD	EPA 8260C
Dibromomethane	<0.050	ug/L	0.050	0.17	1	U		05/16/2017 22:35	RLD	EPA 8260C
Dichlorodifluoromethane	<0.060	ug/L	0.060	0.19	1	U		05/16/2017 22:35	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 866031 Sample Description:MW-2D

DNR License/Well #: 4189/004

Sampled: 05/10/2017 1440

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Diisopropyl ether	<0.040	ug/L	0.040	0.14	1	U	05/16/2017 22:35	05/16/2017 22:35	RLD	EPA 8260C
Ethylbenzene	<0.040	ug/L	0.040	0.15	1	U	05/16/2017 22:35	05/16/2017 22:35	RLD	EPA 8260C
Hexachlorobutadiene	<0.050	ug/L	0.050	0.16	1	U	05/16/2017 22:35	05/16/2017 22:35	RLD	EPA 8260C
Isopropylbenzene	<0.040	ug/L	0.040	0.12	1	U	05/16/2017 22:35	05/16/2017 22:35	RLD	EPA 8260C
m & p-Xylene	<0.070	ug/L	0.070	0.23	1	U	05/16/2017 22:35	05/16/2017 22:35	RLD	EPA 8260C
Methyl tert-butyl ether	0.041	ug/L	0.040	0.12	1	J	05/16/2017 22:35	05/16/2017 22:35	RLD	EPA 8260C
Methylene chloride	<0.050	ug/L	0.050	0.16	1	U	05/16/2017 22:35	05/16/2017 22:35	RLD	EPA 8260C
n-Butylbenzene	<0.030	ug/L	0.030	0.11	1	U	05/16/2017 22:35	05/16/2017 22:35	RLD	EPA 8260C
n-Propylbenzene	<0.040	ug/L	0.040	0.13	1	U	05/16/2017 22:35	05/16/2017 22:35	RLD	EPA 8260C
Naphthalene	<0.030	ug/L	0.030	0.10	1	U	05/16/2017 22:35	05/16/2017 22:35	RLD	EPA 8260C
o-Xylene	<0.040	ug/L	0.040	0.14	1	U	05/16/2017 22:35	05/16/2017 22:35	RLD	EPA 8260C
p-Isopropyltoluene	<0.040	ug/L	0.040	0.13	1	U	05/16/2017 22:35	05/16/2017 22:35	RLD	EPA 8260C
sec-Butylbenzene	<0.050	ug/L	0.050	0.16	1	U	05/16/2017 22:35	05/16/2017 22:35	RLD	EPA 8260C
Styrene	<0.030	ug/L	0.030	0.11	1	U	05/16/2017 22:35	05/16/2017 22:35	RLD	EPA 8260C
tert-Butylbenzene	<0.040	ug/L	0.040	0.14	1	U	05/16/2017 22:35	05/16/2017 22:35	RLD	EPA 8260C
Tetrachloroethene	<0.050	ug/L	0.050	0.18	1	U	05/16/2017 22:35	05/16/2017 22:35	RLD	EPA 8260C
Tetrahydrofuran	<0.40	ug/L	0.40	1.5	1	U	05/16/2017 22:35	05/16/2017 22:35	RLD	EPA 8260C
Toluene	<0.040	ug/L	0.040	0.13	1	U	05/16/2017 22:35	05/16/2017 22:35	RLD	EPA 8260C
trans-1,2-Dichloroethene	<0.040	ug/L	0.040	0.14	1	U	05/16/2017 22:35	05/16/2017 22:35	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.019	ug/L	0.019	0.063	1	U	05/16/2017 22:35	05/16/2017 22:35	RLD	EPA 8260C
Trichloroethene	<0.050	ug/L	0.050	0.17	1	U	05/16/2017 22:35	05/16/2017 22:35	RLD	EPA 8260C
Trichlorofluoromethane	<0.090	ug/L	0.090	0.14	1	U	05/16/2017 22:35	05/16/2017 22:35	RLD	EPA 8260C
Vinyl acetate	<0.22	ug/L	0.22	0.73	1	U	05/16/2017 22:35	05/16/2017 22:35	RLD	EPA 8260C
Vinyl chloride	<0.019	ug/L	0.019	0.064	1	U	05/16/2017 22:35	05/16/2017 22:35	RLD	EPA 8260C

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Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

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Wisconsin (DATCP) Bacteriology ID# 105-289
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ISO/IEC 17025-2005 A2LA Cert # 3806.01
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID ACC20160002
Pennsylvania NELAP Lab ID# 68-04201, # 008

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase: OCONOMOWOC, WI
 Project #: 117-7413001.01
 Folder #: 127277
 Purchase Order #:
 Contract #: 2747

Page 1 of 2
 Arrival Temperature: 3.2
 Report Date: 05/26/2017
 Date Received: 05/11/2017
 Reprint Date: 05/26/2017

CT LAB#: 866032	Sample Description: MW-2D	DNR License/Well #: 4189/004	Sampled: 05/10/2017 1440
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Metals Results										
Dissolved Iron	0.147	mg/L	0.059	0.20	1	J		05/12/2017 14:32	NAH	EPA 6010C
Dissolved Manganese	<2.2	ug/L	2.2	7.3	1	U		05/12/2017 14:32	NAH	EPA 6010C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

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Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications
Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
Louisiana NELAP (primary) ID# ACC20160002
Illinois NELAP Lab ID# 200073
Kansas NELAP Lab ID# E-10368
Virginia NELAP Lab ID# 460203
Maryland Lab ID# WI00061
ISO/IEC 17025-2005 A2LA Cert # 3806.01
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID ACC20160002
Pennsylvania NELAP Lab ID# 68-04201, # 008

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase: OCONOMOWOC, WI
 Project #: 117-7413001.01
 Folder #: 127277
 Purchase Order #:
 Contract #: 2747

Page 1 of 5
 Arrival Temperature: 3.2
 Report Date: 05/26/2017
 Date Received: 05/11/2017
 Reprint Date: 05/26/2017

CT LAB#: 866033	Sample Description: OW-6	DNR License/Well #: 4189/049	Sampled: 05/10/2017 1520
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Field Results										
Dissolved Oxygen (Field)	0.12	mg/L	N/A	N/A	1			05/24/2017 00:00	BMS	
OX/REDOX (Field)	11	MV	N/A	N/A	1			05/24/2017 00:00	BMS	
Color (Field)	CLEAR		N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Conductivity (Field)	778	umhos/cm	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Groundwater Elevation (Field)	846.67	Feet MSL	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
pH (Field)	7.72	S.U.	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Temperature (Field)	10.56	Deg. C	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Turbidity (Field)	NO		N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Inorganic Results										
Alkalinity Total	310	mg/L	10	34	1			05/22/2017 11:14	SAW	EPA 310.2
Total Chloride	140	mg/L	2.8	9.6	4			05/12/2017 16:20	AGK	EPA 9056A
Total Sulfate	28	mg/L	1.0	3.2	1			05/12/2017 15:59	AGK	EPA 9056A
Total Organic Carbon	2.0	mg/L	0.50	1.7	1			05/18/2017 01:24	AGK	EPA 9060A
Metals Results										
Total Iron	0.534	mg/L	0.034	0.11	1		05/11/2017 15:00	05/12/2017 16:59	NAH	EPA 6010C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

The groundwater elevation listed above is from the May 2016 sampling round and therefore incorrect for this round.

CT LAB#: 866033 Sample Description:OW-6

DNR License/Well #: 4189/049

Sampled: 05/10/2017 1520

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Total Manganese	50.4	ug/L	3.4	11	1		05/11/2017 15:00	05/12/2017 16:59	NAH	EPA 6010C
Organic Results										
Acetylene	<0.23	ug/L	0.23	0.77	1	U	05/18/2017 10:45	05/22/2017 09:47	AGK	Mod RSK 175
Ethane	<0.40	ug/L	0.40	1.2	1	U	05/18/2017 10:45	05/22/2017 09:47	AGK	Mod RSK 175
Ethene	<0.50	ug/L	0.50	1.8	1	U	05/18/2017 10:45	05/22/2017 09:47	AGK	Mod RSK 175
Methane	39	ug/L	2.0	6.0	5		05/18/2017 10:45	05/22/2017 09:58	AGK	Mod RSK 175
1,1,1,2-Tetrachloroethane	<0.040	ug/L	0.040	0.13	1	U		05/16/2017 23:04	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.050	ug/L	0.050	0.17	1	U		05/16/2017 23:04	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.017	ug/L	0.017	0.057	1	U		05/16/2017 23:04	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.050	ug/L	0.050	0.16	1	U		05/16/2017 23:04	RLD	EPA 8260C
1,1-Dichloroethane	<0.060	ug/L	0.060	0.19	1	U		05/16/2017 23:04	RLD	EPA 8260C
1,1-Dichloroethene	<0.060	ug/L	0.060	0.20	1	U		05/16/2017 23:04	RLD	EPA 8260C
1,1-Dichloropropene	<0.060	ug/L	0.060	0.19	1	U		05/16/2017 23:04	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/16/2017 23:04	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.040	ug/L	0.040	0.14	1	U		05/16/2017 23:04	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.040	ug/L	0.040	0.12	1	U		05/16/2017 23:04	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.040	ug/L	0.040	0.12	1	U		05/16/2017 23:04	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.090	ug/L	0.090	0.29	1	U		05/16/2017 23:04	RLD	EPA 8260C
1,2-Dibromoethane	<0.070	ug/L	0.070	0.23	1	U		05/16/2017 23:04	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/16/2017 23:04	RLD	EPA 8260C
1,2-Dichloroethane	<0.050	ug/L	0.050	0.18	1	U		05/16/2017 23:04	RLD	EPA 8260C
1,2-Dichloropropane	<0.070	ug/L	0.070	0.23	1	U		05/16/2017 23:04	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<0.050	ug/L	0.050	0.16	1	U		05/16/2017 23:04	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/16/2017 23:04	RLD	EPA 8260C
1,3-Dichloropropane	<0.040	ug/L	0.040	0.13	1	U		05/16/2017 23:04	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 866033 Sample Description:OW-6

DNR License/Well #: 4189/049

Sampled: 05/10/2017 1520

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,4-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/16/2017 23:04	RLD	EPA 8260C
1,4-Dioxane	9.9	ug/L	7.0	23	1	J		05/16/2017 23:04	RLD	EPA 8260C
2,2-Dichloropropane	<0.050	ug/L	0.050	0.15	1	U		05/16/2017 23:04	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.5	1	U		05/16/2017 23:04	RLD	EPA 8260C
2-Chlorotoluene	<0.030	ug/L	0.030	0.11	1	U		05/16/2017 23:04	RLD	EPA 8260C
2-Hexanone	<0.24	ug/L	0.24	0.81	1	U		05/16/2017 23:04	RLD	EPA 8260C
4-Chlorotoluene	<0.040	ug/L	0.040	0.12	1	U		05/16/2017 23:04	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.24	ug/L	0.24	0.82	1	U		05/16/2017 23:04	RLD	EPA 8260C
Acetone	0.97	ug/L	0.30	1.0	1	J B		05/16/2017 23:04	RLD	EPA 8260C
Benzene	<0.018	ug/L	0.018	0.059	1	U		05/16/2017 23:04	RLD	EPA 8260C
Bromobenzene	<0.040	ug/L	0.040	0.15	1	U		05/16/2017 23:04	RLD	EPA 8260C
Bromochloromethane	<0.030	ug/L	0.030	0.099	1	U		05/16/2017 23:04	RLD	EPA 8260C
Bromodichloromethane	<0.016	ug/L	0.016	0.054	1	U		05/16/2017 23:04	RLD	EPA 8260C
Bromoform	<0.040	ug/L	0.040	0.12	1	U		05/16/2017 23:04	RLD	EPA 8260C
Bromomethane	<0.080	ug/L	0.080	0.28	1	U		05/16/2017 23:04	RLD	EPA 8260C
Carbon disulfide	<0.070	ug/L	0.070	0.25	1	U		05/16/2017 23:04	RLD	EPA 8260C
Carbon tetrachloride	<0.050	ug/L	0.050	0.18	1	U		05/16/2017 23:04	RLD	EPA 8260C
Chlorobenzene	<0.040	ug/L	0.040	0.15	1	U		05/16/2017 23:04	RLD	EPA 8260C
Chloroethane	<0.070	ug/L	0.070	0.23	1	U		05/16/2017 23:04	RLD	EPA 8260C
Chloroform	<0.030	ug/L	0.030	0.11	1	U		05/16/2017 23:04	RLD	EPA 8260C
Chloromethane	0.17	ug/L	0.040	0.13	1	B		05/16/2017 23:04	RLD	EPA 8260C
cis-1,2-Dichloroethene	<0.070	ug/L	0.070	0.23	1	U		05/16/2017 23:04	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.011	ug/L	0.011	0.038	1	U		05/16/2017 23:04	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1	U		05/16/2017 23:04	RLD	EPA 8260C
Dibromomethane	<0.050	ug/L	0.050	0.17	1	U		05/16/2017 23:04	RLD	EPA 8260C
Dichlorodifluoromethane	<0.060	ug/L	0.060	0.19	1	U		05/16/2017 23:04	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 866033 Sample Description:OW-6

DNR License/Well #: 4189/049

Sampled: 05/10/2017 1520

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Diisopropyl ether	<0.040	ug/L	0.040	0.14	1	U	05/16/2017 23:04	23:04	RLD	EPA 8260C
Ethylbenzene	<0.040	ug/L	0.040	0.15	1	U	05/16/2017 23:04	23:04	RLD	EPA 8260C
Hexachlorobutadiene	<0.050	ug/L	0.050	0.16	1	U	05/16/2017 23:04	23:04	RLD	EPA 8260C
Isopropylbenzene	<0.040	ug/L	0.040	0.12	1	U	05/16/2017 23:04	23:04	RLD	EPA 8260C
m & p-Xylene	<0.070	ug/L	0.070	0.23	1	U	05/16/2017 23:04	23:04	RLD	EPA 8260C
Methyl tert-butyl ether	<0.040	ug/L	0.040	0.12	1	U	05/16/2017 23:04	23:04	RLD	EPA 8260C
Methylene chloride	<0.050	ug/L	0.050	0.16	1	U	05/16/2017 23:04	23:04	RLD	EPA 8260C
n-Butylbenzene	<0.030	ug/L	0.030	0.11	1	U	05/16/2017 23:04	23:04	RLD	EPA 8260C
n-Propylbenzene	<0.040	ug/L	0.040	0.13	1	U	05/16/2017 23:04	23:04	RLD	EPA 8260C
Naphthalene	<0.030	ug/L	0.030	0.10	1	U	05/16/2017 23:04	23:04	RLD	EPA 8260C
o-Xylene	<0.040	ug/L	0.040	0.14	1	U	05/16/2017 23:04	23:04	RLD	EPA 8260C
p-Isopropyltoluene	<0.040	ug/L	0.040	0.13	1	U	05/16/2017 23:04	23:04	RLD	EPA 8260C
sec-Butylbenzene	<0.050	ug/L	0.050	0.16	1	U	05/16/2017 23:04	23:04	RLD	EPA 8260C
Styrene	<0.030	ug/L	0.030	0.11	1	U	05/16/2017 23:04	23:04	RLD	EPA 8260C
tert-Butylbenzene	<0.040	ug/L	0.040	0.14	1	U	05/16/2017 23:04	23:04	RLD	EPA 8260C
Tetrachloroethene	<0.050	ug/L	0.050	0.18	1	U	05/16/2017 23:04	23:04	RLD	EPA 8260C
Tetrahydrofuran	<0.40	ug/L	0.40	1.5	1	U	05/16/2017 23:04	23:04	RLD	EPA 8260C
Toluene	<0.040	ug/L	0.040	0.13	1	U	05/16/2017 23:04	23:04	RLD	EPA 8260C
trans-1,2-Dichloroethene	<0.040	ug/L	0.040	0.14	1	U	05/16/2017 23:04	23:04	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.019	ug/L	0.019	0.063	1	U	05/16/2017 23:04	23:04	RLD	EPA 8260C
Trichloroethene	<0.050	ug/L	0.050	0.17	1	U	05/16/2017 23:04	23:04	RLD	EPA 8260C
Trichlorofluoromethane	<0.090	ug/L	0.090	0.14	1	U	05/16/2017 23:04	23:04	RLD	EPA 8260C
Vinyl acetate	<0.22	ug/L	0.22	0.73	1	U	05/16/2017 23:04	23:04	RLD	EPA 8260C
Vinyl chloride	<0.019	ug/L	0.019	0.064	1	U	05/16/2017 23:04	23:04	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications

Wisconsin (WDNR) Chemistry ID# 157066030
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 DoD-ELAP A2LA 3806.01
 GA EPD Stipulation ID ACC20160002
 Pennsylvania NELAP Lab ID# 68-04201, # 008

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase: OCONOMOWOC, WI
 Project #: 117-7413001.01
 Folder #: 127277
 Purchase Order #:
 Contract #: 2747

Page 1 of 2
 Arrival Temperature: 3.2
 Report Date: 05/26/2017
 Date Received: 05/11/2017
 Reprint Date: 05/26/2017

CT LAB#: 866034	Sample Description: OW-6	DNR License/Well #: 4189/049	Sampled: 05/10/2017 1520
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Metals Results										
Dissolved Iron	<0.059	mg/L	0.059	0.20	1	U		05/12/2017 14:39	NAH	EPA 6010C
Dissolved Manganese	8.3	ug/L	2.2	7.3	1			05/12/2017 14:39	NAH	EPA 6010C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications

Wisconsin (WDNR) Chemistry ID# 157066030
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Louisiana NELAP (primary) ID# ACC20160002
Illinois NELAP Lab ID# 200073
Kansas NELAP Lab ID# E-10368
Virginia NELAP Lab ID# 460203
Maryland Lab ID# WI00061
ISO/IEC 17025-2005 A2LA Cert # 3806.01
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID ACC20160002
Pennsylvania NELAP Lab ID# 68-04201, # 008

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase: OCONOMOWOC, WI
 Project #: 117-7413001.01
 Folder #: 127277
 Purchase Order #:
 Contract #: 2747

Page 1 of 5
 Arrival Temperature: 3.2
 Report Date: 05/26/2017
 Date Received: 05/11/2017
 Reprint Date: 05/26/2017

CT LAB#: 866035	Sample Description: TB-2	DNR License/Well #: 4189/999	Sampled: 05/10/2017
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Organic Results										
1,1,1,2-Tetrachloroethane	<0.040	ug/L	0.040	0.13	1	U	05/16/2017 18:21	18:21	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.050	ug/L	0.050	0.17	1	U	05/16/2017 18:21	18:21	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.017	ug/L	0.017	0.057	1	U	05/16/2017 18:21	18:21	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.050	ug/L	0.050	0.16	1	U	05/16/2017 18:21	18:21	RLD	EPA 8260C
1,1-Dichloroethane	<0.060	ug/L	0.060	0.19	1	U	05/16/2017 18:21	18:21	RLD	EPA 8260C
1,1-Dichloroethene	<0.060	ug/L	0.060	0.20	1	U	05/16/2017 18:21	18:21	RLD	EPA 8260C
1,1-Dichloropropene	<0.060	ug/L	0.060	0.19	1	U	05/16/2017 18:21	18:21	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.040	ug/L	0.040	0.13	1	U	05/16/2017 18:21	18:21	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.040	ug/L	0.040	0.14	1	U	05/16/2017 18:21	18:21	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.040	ug/L	0.040	0.12	1	U	05/16/2017 18:21	18:21	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.040	ug/L	0.040	0.12	1	U	05/16/2017 18:21	18:21	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.090	ug/L	0.090	0.29	1	U	05/16/2017 18:21	18:21	RLD	EPA 8260C
1,2-Dibromoethane	<0.070	ug/L	0.070	0.23	1	U	05/16/2017 18:21	18:21	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U	05/16/2017 18:21	18:21	RLD	EPA 8260C
1,2-Dichloroethane	<0.050	ug/L	0.050	0.18	1	U	05/16/2017 18:21	18:21	RLD	EPA 8260C
1,2-Dichloropropane	<0.070	ug/L	0.070	0.23	1	U	05/16/2017 18:21	18:21	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 866035 Sample Description:TB-2

DNR License/Well #: 4189/999

Sampled: 05/10/2017

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,3,5-Trimethylbenzene	<0.050	ug/L	0.050	0.16	1	U		05/16/2017 18:21	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/16/2017 18:21	RLD	EPA 8260C
1,3-Dichloropropane	<0.040	ug/L	0.040	0.13	1	U		05/16/2017 18:21	RLD	EPA 8260C
1,4-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/16/2017 18:21	RLD	EPA 8260C
1,4-Dioxane	<7.0	ug/L	7.0	23	1	U		05/16/2017 18:21	RLD	EPA 8260C
2,2-Dichloropropane	<0.050	ug/L	0.050	0.15	1	U		05/16/2017 18:21	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.5	1	U		05/16/2017 18:21	RLD	EPA 8260C
2-Chlorotoluene	<0.030	ug/L	0.030	0.11	1	U		05/16/2017 18:21	RLD	EPA 8260C
2-Hexanone	<0.24	ug/L	0.24	0.81	1	U		05/16/2017 18:21	RLD	EPA 8260C
4-Chlorotoluene	<0.040	ug/L	0.040	0.12	1	U		05/16/2017 18:21	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.24	ug/L	0.24	0.82	1	U		05/16/2017 18:21	RLD	EPA 8260C
Acetone	0.98	ug/L	0.30	1.0	1	J B		05/16/2017 18:21	RLD	EPA 8260C
Benzene	<0.018	ug/L	0.018	0.059	1	U		05/16/2017 18:21	RLD	EPA 8260C
Bromobenzene	<0.040	ug/L	0.040	0.15	1	U		05/16/2017 18:21	RLD	EPA 8260C
Bromochloromethane	<0.030	ug/L	0.030	0.099	1	U		05/16/2017 18:21	RLD	EPA 8260C
Bromodichloromethane	<0.016	ug/L	0.016	0.054	1	U		05/16/2017 18:21	RLD	EPA 8260C
Bromoform	<0.040	ug/L	0.040	0.12	1	U		05/16/2017 18:21	RLD	EPA 8260C
Bromomethane	<0.080	ug/L	0.080	0.28	1	U		05/16/2017 18:21	RLD	EPA 8260C
Carbon disulfide	<0.070	ug/L	0.070	0.25	1	U		05/16/2017 18:21	RLD	EPA 8260C
Carbon tetrachloride	<0.050	ug/L	0.050	0.18	1	U		05/16/2017 18:21	RLD	EPA 8260C
Chlorobenzene	<0.040	ug/L	0.040	0.15	1	U		05/16/2017 18:21	RLD	EPA 8260C
Chloroethane	<0.070	ug/L	0.070	0.23	1	U		05/16/2017 18:21	RLD	EPA 8260C
Chloroform	<0.030	ug/L	0.030	0.11	1	U		05/16/2017 18:21	RLD	EPA 8260C
Chloromethane	0.054	ug/L	0.040	0.13	1	J B		05/16/2017 18:21	RLD	EPA 8260C
cis-1,2-Dichloroethene	<0.070	ug/L	0.070	0.23	1	U		05/16/2017 18:21	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.011	ug/L	0.011	0.038	1	U		05/16/2017 18:21	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 866035 Sample Description:TB-2

DNR License/Well #: 4189/999

Sampled: 05/10/2017

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1	U		05/16/2017 18:21	RLD	EPA 8260C
Dibromomethane	<0.050	ug/L	0.050	0.17	1	U		05/16/2017 18:21	RLD	EPA 8260C
Dichlorodifluoromethane	<0.060	ug/L	0.060	0.19	1	U		05/16/2017 18:21	RLD	EPA 8260C
Diisopropyl ether	<0.040	ug/L	0.040	0.14	1	U		05/16/2017 18:21	RLD	EPA 8260C
Ethylbenzene	<0.040	ug/L	0.040	0.15	1	U		05/16/2017 18:21	RLD	EPA 8260C
Hexachlorobutadiene	<0.050	ug/L	0.050	0.16	1	U		05/16/2017 18:21	RLD	EPA 8260C
Isopropylbenzene	<0.040	ug/L	0.040	0.12	1	U		05/16/2017 18:21	RLD	EPA 8260C
m & p-Xylene	<0.070	ug/L	0.070	0.23	1	U		05/16/2017 18:21	RLD	EPA 8260C
Methyl tert-butyl ether	<0.040	ug/L	0.040	0.12	1	U		05/16/2017 18:21	RLD	EPA 8260C
Methylene chloride	<0.050	ug/L	0.050	0.16	1	U		05/16/2017 18:21	RLD	EPA 8260C
n-Butylbenzene	<0.030	ug/L	0.030	0.11	1	U		05/16/2017 18:21	RLD	EPA 8260C
n-Propylbenzene	<0.040	ug/L	0.040	0.13	1	U		05/16/2017 18:21	RLD	EPA 8260C
Naphthalene	<0.030	ug/L	0.030	0.10	1	U		05/16/2017 18:21	RLD	EPA 8260C
o-Xylene	<0.040	ug/L	0.040	0.14	1	U		05/16/2017 18:21	RLD	EPA 8260C
p-Isopropyltoluene	<0.040	ug/L	0.040	0.13	1	U		05/16/2017 18:21	RLD	EPA 8260C
sec-Butylbenzene	<0.050	ug/L	0.050	0.16	1	U		05/16/2017 18:21	RLD	EPA 8260C
Styrene	<0.030	ug/L	0.030	0.11	1	U		05/16/2017 18:21	RLD	EPA 8260C
tert-Butylbenzene	<0.040	ug/L	0.040	0.14	1	U		05/16/2017 18:21	RLD	EPA 8260C
Tetrachloroethene	<0.050	ug/L	0.050	0.18	1	U		05/16/2017 18:21	RLD	EPA 8260C
Tetrahydrofuran	<0.40	ug/L	0.40	1.5	1	U		05/16/2017 18:21	RLD	EPA 8260C
Toluene	<0.040	ug/L	0.040	0.13	1	U		05/16/2017 18:21	RLD	EPA 8260C
trans-1,2-Dichloroethene	<0.040	ug/L	0.040	0.14	1	U		05/16/2017 18:21	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.019	ug/L	0.019	0.063	1	U		05/16/2017 18:21	RLD	EPA 8260C
Trichloroethene	<0.050	ug/L	0.050	0.17	1	U		05/16/2017 18:21	RLD	EPA 8260C
Trichlorofluoromethane	<0.090	ug/L	0.090	0.14	1	U		05/16/2017 18:21	RLD	EPA 8260C
Vinyl acetate	<0.22	ug/L	0.22	0.73	1	U		05/16/2017 18:21	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 866035 Sample Description:TB-2 DNR License/Well #: 4189/999 Sampled: 05/10/2017

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Vinyl chloride	<0.019	ug/L	0.019	0.064	1	U		05/16/2017 18:21	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications

Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
Louisiana NELAP (primary) ID# ACC20160002
Illinois NELAP Lab ID# 200073
Kansas NELAP Lab ID# E-10368
Virginia NELAP Lab ID# 460203
Maryland Lab ID# WI00061
ISO/IEC 17025-2005 A2LA Cert # 3806.01
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID ACC20160002
Pennsylvania NELAP Lab ID# 68-04201, # 008

QC SUMMARY REPORT

TETRA TECH

SDG #: 0

Folder #: 127277

**Project Name: OCONOMOWOC
 ELECTROPLATING
 Project Number: 117-7413001.01**

Lab Control Spike Water

Analytical Run #:	137758	Analysis Date:	05/11/2017	Prep Batch #:	Matrix:	LIQUID
CTLab #:	867164	Analysis Time:	23:26	Prep Date/Time:	Method:	SW9056A
Parent Sample #:		Analyst:	AGK	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Chloride	16.09	mg/L			15.00	107	80 --- 120		
Sulfate	26.39	mg/L			25.00	106	80 --- 120		

TETRA TECH

SDG #: 0

Folder #: 127277

Project Name: OCONOMOWOC
ELECTROPLATING
Project Number: 117-7413001.01

Method Blank Water

Analytical Run #:	137758	Analysis Date:	05/12/2017	Prep Batch #:	Matrix:	LIQUID
CTLab #:	867163	Analysis Time:	00:08	Prep Date/Time:	Method:	SW9056A
Parent Sample #:		Analyst:	AGK	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Chloride	0.7	mg/L		U	0		0.7		
Sulfate	1.0	mg/L		U	0		1.0		

TETRA TECH

SDG #: 0

Folder #: 127277

Project Name: OCONOMOWOC

ELECTROPLATING

Project Number: 117-7413001.01

Lab Control Spike Water

Analytical Run #:	137913	Analysis Date:	05/17/2017	Prep Batch #:		Matrix:	LIQUID
CTLab #:	868881	Analysis Time:	18:50	Prep Date/Time:		Method:	SW9060
Parent Sample #:		Analyst:	AGK	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Organic Carbon	48.08	mg/L			50.00	96	88 --- 113		

TETRA TECH

SDG #: 0

Folder #: 127277

Project Name: OCONOMOWOC

ELECTROPLATING

Project Number: 117-7413001.01

Method Blank Water

Analytical Run #:	137913	Analysis Date:	05/17/2017	Prep Batch #:		Matrix:	LIQUID
CTLab #:	868882	Analysis Time:	19:05	Prep Date/Time:		Method:	SW9060
Parent Sample #:		Analyst:	AGK	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Organic Carbon	0.5	mg/L		U	0		0.5		

TETRA TECH

SDG #: 0

Folder #: 127277

Project Name: OCONOMOWOC
ELECTROPLATING
Project Number: 117-7413001.01

Lab Control Spike Water

Analytical Run #:	138141	Analysis Date:	05/22/2017	Prep Batch #:	Matrix:	LIQUID
CTLab #:	870365	Analysis Time:	10:52	Prep Date/Time:	Method:	E310.2
Parent Sample #:		Analyst:	SAW	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Alkalinity	366.0	mg/L			375.0	98	90 --- 110		

TETRA TECH

SDG #: 0

Folder #: 127277

Project Name: OCONOMOWOC

ELECTROPLATING

Project Number: 117-7413001.01

Method Blank Water

Analytical Run #:	138141	Analysis Date:	05/22/2017	Prep Batch #:		Matrix:	LIQUID
CTLab #:	870366	Analysis Time:	10:53	Prep Date/Time:		Method:	E310.2
Parent Sample #:		Analyst:	SAW	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Alkalinity	10	mg/L		U	0			10	

TETRA TECH

SDG #: 0

Folder #: 127277

Project Name: OCONOMOWOC

ELECTROPLATING

Project Number: 117-7413001.01

Matrix Spike Duplicate Water

Analytical Run #:	137821	Analysis Date:	05/12/2017	Prep Batch #:	Matrix:	GROUND WATER
CTLab #:	867485	Analysis Time:	14:53	Prep Date/Time:	Method:	SW6010
Parent Sample #:	867484	Analyst:	DC	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Iron	1.85	mg/L	BDL		2.00	92	75 --- 113	5	18
Manganese	887	ug/L	8.3		1000	88	75 --- 121	4	13

TETRA TECH

SDG #: 0

Folder #: 127277

Project Name: OCONOMOWOC

ELECTROPLATING

Project Number: 117-7413001.01

Matrix Spike Water

Analytical Run #:	137821	Analysis Date:	05/12/2017	Prep Batch #:	Matrix:	GROUND WATER
CTLab #:	867484	Analysis Time:	14:46	Prep Date/Time:	Method:	SW6010
Parent Sample #:	866034	Analyst:	DC	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Iron	1.95	mg/L	BDL		2.00	98	75 --- 113		18
Manganese	923	ug/L	8.3		1000	91	75 --- 121		13

TETRA TECH

SDG #: 0

Folder #: 127277

Project Name: OCONOMOWOC
ELECTROPLATING
Project Number: 117-7413001.01

Lab Control Spike Water

Analytical Run #:	137825	Analysis Date:	05/12/2017	Prep Batch #:	62344	Matrix:	LIQUID
CTLab #:	866263	Analysis Time:	15:18	Prep Date/Time:	05/11/2017 15:00	Method:	SW6010
Parent Sample #:		Analyst:	NAH	Prep Analyst:	NAH		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Iron	0.4010	mg/L			0.4000	100	80 --- 115		
Manganese	198.0	ug/L			200.0	99	86 --- 112		

TETRA TECH

SDG #: 0

Folder #: 127277

Project Name: OCONOMOWOC
ELECTROPLATING
Project Number: 117-7413001.01

Method Blank Water

Analytical Run #:	137825	Analysis Date:	05/12/2017	Prep Batch #:	62344	Matrix:	LIQUID
CTLab #:	866262	Analysis Time:	15:25	Prep Date/Time:	05/11/2017 15:00	Method:	SW6010
Parent Sample #:		Analyst:	NAH	Prep Analyst:	NAH		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Iron	0.034	mg/L		U	0		0.034		
Manganese	3.4	ug/L		U	0		3.4		

TETRA TECH

SDG #: 0

Folder #: 127277

Project Name: OCONOMOWOC

ELECTROPLATING

Project Number: 117-7413001.01

Matrix Spike Duplicate Water

Analytical Run #:	137825	Analysis Date:	05/12/2017	Prep Batch #:	62344	Matrix:	GROUND WATER
CTLab #:	866265	Analysis Time:	15:45	Prep Date/Time:	05/11/2017 15:00	Method:	SW6010
Parent Sample #:	866264	Analyst:	NAH	Prep Analyst:	NAH		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Iron	0.575	mg/L	0.171		0.400	101	75 --- 118	0	11
Manganese	215	ug/L	18.2		200	98	84 --- 111	1	7

Matrix Spike Water

Analytical Run #:	137825	Analysis Date:	05/12/2017	Prep Batch #:	62344	Matrix:	GROUND WATER
CTLab #:	866264	Analysis Time:	15:39	Prep Date/Time:	05/11/2017 15:00	Method:	SW6010
Parent Sample #:	866019	Analyst:	NAH	Prep Analyst:	NAH		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Iron	0.573	mg/L	0.171		0.400	100	75 --- 118		
Manganese	218	ug/L	18.2		200	100	84 --- 111		

Lab Control Spike Water

Analytical Run #:	137835	Analysis Date:	05/16/2017	Prep Batch #:	Matrix:	LIQUID
CTLab #:	868450	Analysis Time:	16:00	Prep Date/Time:	Method:	SW8260C
Parent Sample #:		Analyst:	RLD	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	4.06	ug/L			4.00	102	79 --- 122		
1,1,1-Trichloroethane	4.33	ug/L			4.00	108	76 --- 129		
1,1,2,2-Tetrachloroethane	4.25	ug/L			4.00	106	79 --- 119		
1,1,2-Trichloroethane	4.07	ug/L			4.00	102	82 --- 113		
1,1-Dichloroethane	4.22	ug/L			4.00	106	80 --- 119		
1,1-Dichloroethene	4.24	ug/L			4.00	106	75 --- 131		
1,1-Dichloropropene	4.27	ug/L			4.00	107	78 --- 126		
1,2 Dichloroethane-d4	94.0	% Recovery			100	94.0	85 --- 108		
1,2,3-Trichlorobenzene	4.14	ug/L			4.00	104	79 --- 118		
1,2,3-Trichloropropane	3.93	ug/L			4.00	98	67 --- 118		
1,2,4-Trichlorobenzene	4.17	ug/L			4.00	104	82 --- 121		
1,2,4-Trimethylbenzene	4.42	ug/L			4.00	110	80 --- 124		
1,2-Dibromo-3-chloropropane	4.03	ug/L			4.00	101	71 --- 117		
1,2-Dibromoethane	4.18	ug/L			4.00	104	85 --- 115		
1,2-Dichlorobenzene	4.14	ug/L			4.00	104	80 --- 119		
1,2-Dichloroethane	4.03	ug/L			4.00	101	82 --- 113		
1,2-Dichloropropane	4.19	ug/L			4.00	105	84 --- 114		
1,3,5-Trimethylbenzene	4.34	ug/L			4.00	108	83 --- 123		
1,3-Dichlorobenzene	4.35	ug/L			4.00	109	79 --- 122		
1,3-Dichloropropane	4.03	ug/L			4.00	101	84 --- 110		
1,4-Dichlorobenzene	4.21	ug/L			4.00	105	79 --- 121		
1,4-Dioxane	161	ug/L			200	80	70 --- 130		
2,2-Dichloropropane	4.31	ug/L			4.00	108	73 --- 130		
2-Butanone	38.4	ug/L			40.0	96	73 --- 121		
2-Chlorotoluene	4.26	ug/L			4.00	106	82 --- 120		
2-Hexanone	40.0	ug/L			40.0	100	75 --- 121		
4-Chlorotoluene	4.26	ug/L			4.00	106	80 --- 124		
4-Methyl-2-pentanone	41.0	ug/L			40.0	102	73 --- 127		
Acetone	33.5	ug/L			40.0	84	57 --- 123		
Benzene	4.21	ug/L			4.00	105	81 --- 121		
Bromobenzene	4.21	ug/L			4.00	105	80 --- 119		
Bromochloromethane	4.17	ug/L			4.00	104	80 --- 113		
Bromodichloromethane	4.27	ug/L			4.00	107	80 --- 118		
Bromofluorobenzene	102	% Recovery			100	102	91 --- 107		
Bromoform	3.97	ug/L			4.00	99	72 --- 119		
Bromomethane	4.21	ug/L			4.00	105	19 --- 160		
Carbon disulfide	8.48	ug/L			8.00	106	77 --- 128		
Carbon tetrachloride	4.30	ug/L			4.00	108	79 --- 129		
Chlorobenzene	4.12	ug/L			4.00	103	81 --- 117		
Chloroethane	4.06	ug/L			4.00	102	80 --- 130		
Chloroform	4.24	ug/L			4.00	106	78 --- 116		
Chloromethane	3.87	ug/L			4.00	97	73 --- 120		

Lab Control Spike Water

Analytical Run #:	137835	Analysis Date:	05/16/2017	Prep Batch #:	Matrix:	LIQUID
CTLab #:	868450	Analysis Time:	16:00	Prep Date/Time:	Method:	SW8260C
Parent Sample #:		Analyst:	RLD	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
cis-1,2-Dichloroethene	4.25	ug/L			4.00	106	80 --- 120		
cis-1,3-Dichloropropene	4.30	ug/L			4.00	108	81 --- 118		
d8-Toluene	101	% Recovery			100	101	95 --- 103		
Dibromochloromethane	3.90	ug/L			4.00	98	81 --- 115		
Dibromofluoromethane	101	% Recovery			100	101	92 --- 106		
Dibromomethane	4.10	ug/L			4.00	102	79 --- 118		
Dichlorodifluoromethane	4.18	ug/L			4.00	104	80 --- 125		
Diisopropyl ether	4.21	ug/L			4.00	105	81 --- 120		
Ethylbenzene	4.35	ug/L			4.00	109	81 --- 124		
Hexachlorobutadiene	4.02	ug/L			4.00	100	71 --- 131		
Isopropylbenzene	4.34	ug/L			4.00	108	80 --- 127		
m & p-Xylene	8.59	ug/L			8.00	107	81 --- 123		
Methyl tert-butyl ether	4.12	ug/L			4.00	103	80 --- 116		
Methylene chloride	4.10	ug/L			4.00	102	79 --- 125		
n-Butylbenzene	4.18	ug/L			4.00	104	81 --- 124		
n-Propylbenzene	4.42	ug/L			4.00	110	81 --- 127		
Naphthalene	3.97	ug/L			4.00	99	64 --- 126		
o-Xylene	4.30	ug/L			4.00	108	81 --- 122		
p-Isopropyltoluene	4.37	ug/L			4.00	109	84 --- 124		
sec-Butylbenzene	4.35	ug/L			4.00	109	84 --- 125		
Styrene	4.27	ug/L			4.00	107	82 --- 122		
tert-Butylbenzene	4.29	ug/L			4.00	107	82 --- 123		
Tetrachloroethene	4.16	ug/L			4.00	104	80 --- 124		
Tetrahydrofuran	37.3	ug/L			40.0	93	66 --- 128		
Toluene	4.26	ug/L			4.00	106	80 --- 119		
trans-1,2-Dichloroethene	4.11	ug/L			4.00	103	77 --- 125		
trans-1,3-Dichloropropene	3.94	ug/L			4.00	98	79 --- 119		
Trichloroethene	4.32	ug/L			4.00	108	78 --- 122		
Trichlorofluoromethane	4.11	ug/L			4.00	103	78 --- 129		
Vinyl acetate	38.7	ug/L			40.0	97	78 --- 126		
Vinyl chloride	4.17	ug/L			4.00	104	79 --- 127		

Method Blank Water

Analytical Run #:	137835	Analysis Date:	05/16/2017	Prep Batch #:	Matrix:	LIQUID
CTLab #:	868464	Analysis Time:	17:25	Prep Date/Time:	Method:	SW8260C
Parent Sample #:		Analyst:	RLD	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	0.04	ug/L		U	0		0.04		
1,1,1-Trichloroethane	0.05	ug/L		U	0		0.05		
1,1,2,2-Tetrachloroethane	0.017	ug/L		U	0		0.017		
1,1,2-Trichloroethane	0.05	ug/L		U	0		0.05		
1,1-Dichloroethane	0.06	ug/L		U	0		0.06		
1,1-Dichloroethene	0.06	ug/L		U	0		0.06		
1,1-Dichloropropene	0.06	ug/L		U	0		0.06		
1,2 Dichloroethane-d4	98.0	% Recovery			100	98.0	68 --- 120		
1,2,3-Trichlorobenzene	0.04	ug/L		U	0		0.04		
1,2,3-Trichloropropane	0.04	ug/L		U	0		0.04		
1,2,4-Trichlorobenzene	0.04	ug/L		U	0		0.04		
1,2,4-Trimethylbenzene	0.04	ug/L		U	0		0.04		
1,2-Dibromo-3-chloropropane	0.09	ug/L		U	0		0.09		
1,2-Dibromoethane	0.07	ug/L		U	0		0.07		
1,2-Dichlorobenzene	0.04	ug/L		U	0		0.04		
1,2-Dichloroethane	0.05	ug/L		U	0		0.05		
1,2-Dichloropropane	0.07	ug/L		U	0		0.07		
1,3,5-Trimethylbenzene	0.05	ug/L		U	0		0.05		
1,3-Dichlorobenzene	0.04	ug/L		U	0		0.04		
1,3-Dichloropropane	0.04	ug/L		U	0		0.04		
1,4-Dichlorobenzene	0.04	ug/L		U	0		0.04		
1,4-Dioxane	7	ug/L		U	0		7		
2,2-Dichloropropane	0.05	ug/L		U	0		0.05		
2-Butanone	0.5	ug/L		U	0		0.5		
2-Chlorotoluene	0.03	ug/L		U	0		0.03		
2-Hexanone	0.24	ug/L		U	0		0.24		
4-Chlorotoluene	0.04	ug/L		U	0		0.04		
4-Methyl-2-pentanone	0.24	ug/L		U	0		0.24		
Acetone	1.12	ug/L			0		0.30		
Benzene	0.018	ug/L		U	0		0.018		
Bromobenzene	0.04	ug/L		U	0		0.04		
Bromochloromethane	0.030	ug/L		U	0		0.030		
Bromodichloromethane	0.016	ug/L		U	0		0.016		
Bromofluorobenzene	100	% Recovery			100	100	68 --- 120		
Bromoform	0.04	ug/L		U	0		0.04		
Bromomethane	0.08	ug/L		U	0		0.08		
Carbon disulfide	0.07	ug/L		U	0		0.07		
Carbon tetrachloride	0.05	ug/L		U	0		0.05		
Chlorobenzene	0.04	ug/L		U	0		0.04		
Chloroethane	0.07	ug/L		U	0		0.07		
Chloroform	0.03	ug/L		U	0		0.03		
Chloromethane	0.0425	ug/L			0		0.04		

Method Blank Water

Analytical Run #:	137835	Analysis Date:	05/16/2017	Prep Batch #:	Matrix:	LIQUID
CTLab #:	868464	Analysis Time:	17:25	Prep Date/Time:	Method:	SW8260C
Parent Sample #:		Analyst:	RLD	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
cis-1,2-Dichloroethene	0.07	ug/L		U	0		0.07		
cis-1,3-Dichloropropene	0.011	ug/L		U	0		0.011		
d8-Toluene	102	% Recovery			100	102	71 --- 117		
Dibromochloromethane	0.03	ug/L		U	0		0.03		
Dibromofluoromethane	101	% Recovery			100	101	67 --- 122		
Dibromomethane	0.05	ug/L		U	0		0.05		
Dichlorodifluoromethane	0.06	ug/L		U	0		0.06		
Diisopropyl ether	0.04	ug/L		U	0		0.04		
Ethylbenzene	0.04	ug/L		U	0		0.04		
Hexachlorobutadiene	0.05	ug/L		U	0		0.05		
Isopropylbenzene	0.04	ug/L		U	0		0.04		
m & p-Xylene	0.07	ug/L		U	0		0.07		
Methyl tert-butyl ether	0.04	ug/L		U	0		0.04		
Methylene chloride	0.05	ug/L		U	0		0.05		
n-Butylbenzene	0.03	ug/L		U	0		0.03		
n-Propylbenzene	0.04	ug/L		U	0		0.04		
Naphthalene	0.03	ug/L		U	0		0.03		
o-Xylene	0.04	ug/L		U	0		0.04		
p-Isopropyltoluene	0.04	ug/L		U	0		0.04		
sec-Butylbenzene	0.05	ug/L		U	0		0.05		
Styrene	0.03	ug/L		U	0		0.03		
tert-Butylbenzene	0.04	ug/L		U	0		0.04		
Tetrachloroethene	0.05	ug/L		U	0		0.05		
Tetrahydrofuran	0.4	ug/L		U	0		0.4		
Toluene	0.04	ug/L		U	0		0.04		
trans-1,2-Dichloroethene	0.04	ug/L		U	0		0.04		
trans-1,3-Dichloropropene	0.019	ug/L		U	0		0.019		
Trichloroethene	0.05	ug/L		U	0		0.05		
Trichlorofluoromethane	0.09	ug/L		U	0		0.09		
Vinyl acetate	0.22	ug/L		U	0		0.22		
Vinyl chloride	0.019	ug/L		U	0		0.019		

TETRA TECH

SDG #: 0

Folder #: 127277

Project Name: OCONOMOWOC
ELECTROPLATING
Project Number: 117-7413001.01

Lab Control Spike Water

Analytical Run #:	138061	Analysis Date:	05/22/2017	Prep Batch #:	62449	Matrix:	LIQUID
CTLab #:	869177	Analysis Time:	09:19	Prep Date/Time:	05/18/2017 10:45	Method:	RSK175
Parent Sample #:		Analyst:	AGK	Prep Analyst:	AGK		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Acetylene	2.28	ug/L			3.07	74	70 --- 130		20
Ethane	3.60	ug/L			4.78	75	66 --- 129		20
Ethene	5.22	ug/L			6.80	77	68 --- 128		20
Methane	1.78	ug/L			2.30	77	71 --- 126		20

TETRA TECH

SDG #: 0

Folder #: 127277

Project Name: OCONOMOWOC
ELECTROPLATING
Project Number: 117-7413001.01

Method Blank Water

Analytical Run #:	138061	Analysis Date:	05/22/2017	Prep Batch #:	62449	Matrix:	LIQUID
CTLab #:	869176	Analysis Time:	09:29	Prep Date/Time:	05/18/2017 10:45	Method:	RSK175
Parent Sample #:		Analyst:	AGK	Prep Analyst:	AGK		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Acetylene	0.23	ug/L		U	0		0.23		
Ethane	0.4	ug/L		U	0		0.4		
Ethene	0.5	ug/L		U	0		0.5		
Methane	0.4	ug/L		U	0		0.4		

Sample Condition Report

Folder #: 127277	Print Date / Time: 05/11/2017 10:25
Client: TETRA TECH	Received Date / Time / By: 05/11/2017 09:50 DRT
Project Name: OCONOMOWOC ELECTROPLATING	Log-In Date / Time / By: 05/11/2017 10:25 BNA
Project Phase: OCONOMOWOC, WI	Project #: 117-7413001.01 PM: BMS
Coolers: 5481	Temperature: 3.2C On Ice: Y
Custody Seals Present : Y	COC Present?: Y Complete? Y
Seal Intact? Y	Numbers: SIGNED AND DATED
Ship Method: FEDEX	Tracking Number: 779113455014
Adequate Packaging: Y	Temp Blank Enclosed? Y

Notes: THE SAMPLES WERE RECEIVED IN GOOD CONDITION ON ICE.

ONE CUSTODY SEAL WAS PRESENT AND INTACT UPON RECEIPT - DATED 5/10/17 AND SIGNED.

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
866019 MW-105B	UNPRES PL	1	/	ALK,Anions
	Total # of Containers of Type		(UNPRES PL) = 1	
866019 MW-105B	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	Total # of Containers of Type		(VOA HCL) = 6	
866019 MW-105B	HNO3	1	Y /	ICP
	Total # of Containers of Type		(HNO3) = 1	
866019 MW-105B	H2SO4 PL	1	Y /	TOC
	Total # of Containers of Type		(H2SO4 PL) = 1	
Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
866020 MW-105B	HNO3	1	Y /	ICP
	Total # of Containers of Type		(HNO3) = 1	
Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
866021 MW-105D				

UNPRES PL 1 /
Total # of Containers of Type (UNPRES PL) = 1

ALK,Anions

866021 MW-105D

VOA HCL 1 / GAS,VOC
 VOA HCL 1 / GAS,VOC
 VOA HCL 1 / GAS,VOC
 VOA HCL 1 / GAS,VOC
 VOA HCL 1 / GAS,VOC
 VOA HCL 1 / GAS,VOC
Total # of Containers of Type (VOA HCL) = 6

866021 MW-105D

HNO3 1 Y / ICP
Total # of Containers of Type (HNO3) = 1

866021 MW-105D

H2SO4 PL 1 Y / TOC
Total # of Containers of Type (H2SO4 PL) = 1

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
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866022 MW-105D

HNO3 1 Y / ICP
Total # of Containers of Type (HNO3) = 1

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
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866023 MW-105S

UNPRES PL 1 / ALK,Anions
Total # of Containers of Type (UNPRES PL) = 1

866023 MW-105S

VOA HCL 1 / GAS,VOC
 VOA HCL 1 / GAS,VOC
 VOA HCL 1 / GAS,VOC
 VOA HCL 1 / GAS,VOC
 VOA HCL 1 / GAS,VOC
 VOA HCL 1 / GAS,VOC
Total # of Containers of Type (VOA HCL) = 6

866023 MW-105S

HNO3 1 Y / ICP
Total # of Containers of Type (HNO3) = 1

866023 MW-105S

H2SO4 PL 1 Y / TOC
Total # of Containers of Type (H2SO4 PL) = 1

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
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866024 MW-105S

HNO3 1 Y / ICP
Total # of Containers of Type (HNO3) = 1

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
866025 MW-105S DUP	UNPRES PL	1	/	ALK,Anions
	Total # of Containers of Type		(UNPRES PL) = 1	
866025 MW-105S DUP	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	Total # of Containers of Type		(VOA HCL) = 6	
866025 MW-105S DUP	HNO3	1	Y /	ICP
	Total # of Containers of Type		(HNO3) = 1	
866025 MW-105S DUP	H2SO4 PL	1	Y /	TOC
	Total # of Containers of Type		(H2SO4 PL) = 1	
Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
866026 MW-105S DUP	HNO3	1	Y /	ICP
	Total # of Containers of Type		(HNO3) = 1	
Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
866027 MW-1S	UNPRES PL	1	/	ALK,Anions
	Total # of Containers of Type		(UNPRES PL) = 1	
866027 MW-1S	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	Total # of Containers of Type		(VOA HCL) = 6	
866027 MW-1S	HNO3	1	Y /	ICP
	Total # of Containers of Type		(HNO3) = 1	
866027 MW-1S	H2SO4 PL	1	Y /	TOC
	Total # of Containers of Type		(H2SO4 PL) = 1	

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
866028 MW-1S	HNO3	1	Y /	ICP
	Total # of Containers of Type (HNO3) = 1			

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
866029 MW-1D	UNPRES PL	1	/	ALK,Anions
	Total # of Containers of Type (UNPRES PL) = 1			

866029 MW-1D	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	Total # of Containers of Type (VOA HCL) = 6			

866029 MW-1D	HNO3	1	Y /	ICP
	Total # of Containers of Type (HNO3) = 1			

866029 MW-1D	H2SO4 PL	1	Y /	TOC
	Total # of Containers of Type (H2SO4 PL) = 1			

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
866030 MW-1D	HNO3	1	Y /	ICP
	Total # of Containers of Type (HNO3) = 1			

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
866031 MW-2D	UNPRES PL	1	/	ALK,Anions
	Total # of Containers of Type (UNPRES PL) = 1			

866031 MW-2D	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	Total # of Containers of Type (VOA HCL) = 6			

866031 MW-2D	HNO3	1	Y /	ICP
	Total # of Containers of Type (HNO3) = 1			

866031	MW-2D	H2SO4 PL	1	Y /	TOC
		Total # of Containers of Type	(H2SO4 PL) = 1		

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
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866032	MW-2D	HNO3	1	Y /	ICP
		Total # of Containers of Type	(HNO3) = 1		

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
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866033	OW-6	UNPRES PL	1	/	ALK,Anions
		Total # of Containers of Type	(UNPRES PL) = 1		

866033	OW-6	VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		Total # of Containers of Type	(VOA HCL) = 6		

866033	OW-6	HNO3	1	Y /	ICP
		Total # of Containers of Type	(HNO3) = 1		

866033	OW-6	H2SO4 PL	1	Y /	TOC
		Total # of Containers of Type	(H2SO4 PL) = 1		

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
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866034	OW-6	HNO3	1	Y /	ICP
		Total # of Containers of Type	(HNO3) = 1		

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
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866035	TB-2	Trip Blank	1	/	VOC
		Trip Blank	1	/	VOC
		Total # of Containers of Type	(Trip Blank) = 2		

Condition Code Condition Description
 1 Sample Received OK

Company: Tetra Tech
 Project Contact: Mark Manthey
 Telephone: 262 792 1282
 Project Name: Oconomowoc Electroplating
 Project #: 117-7413001.01
 Location: Oconomowoc
 Sampled By: Ashley Kowalewski

CT LABORATORIES

 Folder #: 127277
 Company: TETRA TECH
 Project: OCONOMOWOC ELEC
 Logged By: BNA PM BAI

1230 Lange Court, Baraboo, WI 53913
 608-356-2760 Fax 608-356-2766
 www.ctlaboratories.com

Report To: MARK.MANTHEY@tetratech.com
 Company: Tetra Tech
 Address: 175 N Corporate Dr #100
 Brookfield WI 53045
 Invoice To: *
 EMAIL:
 Company:
 Address:

Program: VI RCRA SDWA NPDES
 Solid Waste Other _____
 # _____

*Party listed is responsible for payment of invoice as per CT Laboratories' terms and conditions

Client Special Instructions
 * Field filtered
 "FF" written on sample container

Matrix:
 GW - groundwater SW - surface water WW - wastewater DW - drinking water
 S - soil/sediment SL - sludge A - air M - misc/waste

Filtered? Y/N	ANALYSES REQUESTED										Total # Containers	Designated MS/MSD	Turnaround Time Normal RUSH* Date Needed: _____ Rush analysis requires prior CT Laboratories' approval Surcharges: 24 hr 200% 2-3 days 100% 4-9 days 50%
	TDC	ICP Dissolved	ICP Total	alk/Chloride	RSK-178 metals	ethox ethyl alcohol	VOCs	8600LL					

Collection Date	Time	Matrix	Grab/Comp	Sample #	Sample ID Description	Fill in Spaces with Bottles per Test										CT Lab ID # Lab use only			
5-10	1030	6w	grab	1	MW-10SB	1	1	1	1	3	3							866019/866020	866019
	1105			2	MW-10SP	1	1	1	1	3	3							866021/866022	866020
	1155			3	MW-10Ss	1	1	1	1	3	3							866023/866024	866021
	1200			4	MW-10Ss Dup	1	1	1	1	3	3							866025/866026	866022
	1315			5	MW-1S	1	1	1	1	3	3							866027/866028	866023
	1350			6	MW-1D	1	1	1	1	3	3							866029/866030	866024
	1440			7	MW-2D	1	1	1	1	3	3							866031/866032	866025
	1520			8	aw-10	1	1	1	1	3	3							866033/866034	866026
		DI			TB-2													866035	866027
																			866028

Relinquished By: Ashley Kowalewski	Date/Time: 5-10-17 1730	Received By: [Signature]	Date/Time: 5/11/17 1000	Lab Use Only Ice Present <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Temp 32 IR Gun 14 Cooler # 5481
Received by:	Date/Time:	Received for Laboratory by: [Signature]	Date/Time: 5-11-17 1037	

Ice Present YES NO
Temperature 3.2
IR Gun # 14
Initials PK
Date 5/11/17 Time 0900
Cooler #: 5481

Cooler Receipt Form



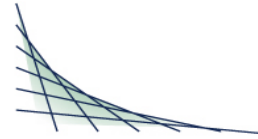
THU - 11 MAY 10:30A
PRIORITY OVERNIGHT
DSR
53913
WI-US MSN

TRK# 7791 1345 5014
55 MSNA



CUSTOMER SEAL
DATE 5-10-17
SIGNATURE Orlando K...

REC
Quality Environmental Containers
800-255-3950 • 304-255-3900



ANALYTICAL REPORT

This report at a minimum contains the following information:

- Analytical Report of Test Results
- Description of QC Qualifiers
- Chain of Custody (copy)
- Quality Control Summary
- Case Narrative (if applicable)
- Correspondence with Client (if applicable)

This report has been specifically prepared to satisfy project or program requirements. These results are in compliance with NELAC requirements for parameters where accreditation is required or available, unless otherwise noted in the case narrative.



ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase: OCONOMOWOC, WI
 Project #: 117-7413001.01
 Folder #: 127313
 Purchase Order #:
 Contract #: 2747

Page 1 of 6
 Arrival Temperature: 1.3
 Report Date: 05/26/2017
 Date Received: 05/12/2017
 Reprint Date: 05/26/2017

CT LAB#: 866669	Sample Description: MW-102D	DNR License/Well #: 4189/038	Sampled: 05/11/2017 1030
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Field Results										
Dissolved Oxygen (Field)	1.07	mg/L	N/A	N/A	1			05/24/2017 00:00	BMS	
OX/REDOX (Field)	-44	MV	N/A	N/A	1			05/24/2017 00:00	BMS	
Color (Field)	CLEAR		N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Conductivity (Field)	1180	umhos/cm	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Groundwater Elevation (Field)	846.14	Feet MSL	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
pH (Field)	7.06	S.U.	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Temperature (Field)	12.36	Deg. C	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Turbidity (Field)	NO		N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Inorganic Results										
Alkalinity Total	480	mg/L	10	34	1			05/22/2017 11:17	SAW	EPA 310.2
Total Chloride	210	mg/L	4.2	14	6	M		05/12/2017 21:19	AGK	EPA 9056A
Total Sulfate	87	mg/L	6.0	19	6	M		05/12/2017 21:19	AGK	EPA 9056A
Total Organic Carbon	3.6	mg/L	0.50	1.7	1			05/18/2017 01:36	AGK	EPA 9060A
Metals Results										
Total Iron	1.76	mg/L	0.034	0.11	1		05/15/2017 15:00	05/16/2017 15:14	NAH	EPA 6010C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis
 The groundwater elevation listed above is from the May 2016 sampling round and therefore incorrect for this round.

CT LAB#: 866669 Sample Description: MW-102D

DNR License/Well #: 4189/038

Sampled: 05/11/2017 1030

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Total Manganese	35.6	ug/L	3.4	11	1		05/15/2017 15:00	05/16/2017 15:14	NAH	EPA 6010C
Organic Results										
Acetylene	<0.23	ug/L	0.23	0.77	1	U	05/18/2017 10:45	05/22/2017 09:38	AGK	Mod RSK 175
Ethane	<0.40	ug/L	0.40	1.2	1	U	05/18/2017 10:45	05/22/2017 09:38	AGK	Mod RSK 175
Ethene	<0.50	ug/L	0.50	1.8	1	U	05/18/2017 10:45	05/22/2017 09:38	AGK	Mod RSK 175
Methane	3.1	ug/L	0.40	1.2	1		05/18/2017 10:45	05/22/2017 09:38	AGK	Mod RSK 175
Volatile Organic Compounds 8260 Comments: Suspected methylene chloride laboratory contamination.										
1,1,1,2-Tetrachloroethane	<0.10	ug/L	0.10	0.33	3	U		05/17/2017 10:06	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.13	ug/L	0.13	0.43	3	U		05/17/2017 10:06	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.043	ug/L	0.043	0.14	3	U		05/17/2017 10:06	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.13	ug/L	0.13	0.40	3	U		05/17/2017 10:06	RLD	EPA 8260C
1,1-Dichloroethane	<0.15	ug/L	0.15	0.48	3	U		05/17/2017 10:06	RLD	EPA 8260C
1,1-Dichloroethene	<0.15	ug/L	0.15	0.50	3	U		05/17/2017 10:06	RLD	EPA 8260C
1,1-Dichloropropene	<0.15	ug/L	0.15	0.48	3	U		05/17/2017 10:06	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.10	ug/L	0.10	0.33	3	U		05/17/2017 10:06	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.10	ug/L	0.10	0.35	3	U		05/17/2017 10:06	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.10	ug/L	0.10	0.30	3	U		05/17/2017 10:06	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.10	ug/L	0.10	0.30	3	U		05/17/2017 10:06	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.23	ug/L	0.23	0.73	3	U		05/17/2017 10:06	RLD	EPA 8260C
1,2-Dibromoethane	<0.18	ug/L	0.18	0.58	3	U		05/17/2017 10:06	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.10	ug/L	0.10	0.33	3	U		05/17/2017 10:06	RLD	EPA 8260C
1,2-Dichloroethane	0.30	ug/L	0.13	0.45	3	J		05/17/2017 10:06	RLD	EPA 8260C
1,2-Dichloropropane	<0.18	ug/L	0.18	0.58	3	U		05/17/2017 10:06	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<0.13	ug/L	0.13	0.40	3	U		05/17/2017 10:06	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 866669 Sample Description: MW-102D

DNR License/Well #: 4189/038

Sampled: 05/11/2017 1030

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Volatile Organic Compounds 8260 Comments: Suspected methylene chloride laboratory contamination.										
1,3-Dichlorobenzene	<0.10	ug/L	0.10	0.33	3	U		05/17/2017 10:06	RLD	EPA 8260C
1,3-Dichloropropane	<0.10	ug/L	0.10	0.33	3	U		05/17/2017 10:06	RLD	EPA 8260C
1,4-Dichlorobenzene	<0.10	ug/L	0.10	0.33	3	U		05/17/2017 10:06	RLD	EPA 8260C
1,4-Dioxane	<18	ug/L	18	58	3	U		05/17/2017 10:06	RLD	EPA 8260C
2,2-Dichloropropane	<0.13	ug/L	0.13	0.38	3	U		05/17/2017 10:06	RLD	EPA 8260C
2-Butanone	<1.3	ug/L	1.3	3.8	3	U		05/17/2017 10:06	RLD	EPA 8260C
2-Chlorotoluene	<0.075	ug/L	0.075	0.28	3	U		05/17/2017 10:06	RLD	EPA 8260C
2-Hexanone	<0.60	ug/L	0.60	2.0	3	U		05/17/2017 10:06	RLD	EPA 8260C
4-Chlorotoluene	<0.10	ug/L	0.10	0.30	3	U		05/17/2017 10:06	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.60	ug/L	0.60	2.1	3	U		05/17/2017 10:06	RLD	EPA 8260C
Acetone	2.0	ug/L	0.75	2.5	3	J B		05/17/2017 10:06	RLD	EPA 8260C
Benzene	<0.045	ug/L	0.045	0.15	3	U		05/17/2017 10:06	RLD	EPA 8260C
Bromobenzene	<0.10	ug/L	0.10	0.38	3	U		05/17/2017 10:06	RLD	EPA 8260C
Bromochloromethane	<0.075	ug/L	0.075	0.25	3	U		05/17/2017 10:06	RLD	EPA 8260C
Bromodichloromethane	<0.040	ug/L	0.040	0.14	3	U		05/17/2017 10:06	RLD	EPA 8260C
Bromoform	<0.10	ug/L	0.10	0.30	3	U		05/17/2017 10:06	RLD	EPA 8260C
Bromomethane	<0.20	ug/L	0.20	0.70	3	U		05/17/2017 10:06	RLD	EPA 8260C
Carbon disulfide	<0.18	ug/L	0.18	0.63	3	U		05/17/2017 10:06	RLD	EPA 8260C
Carbon tetrachloride	<0.13	ug/L	0.13	0.45	3	U		05/17/2017 10:06	RLD	EPA 8260C
Chlorobenzene	<0.10	ug/L	0.10	0.38	3	U		05/17/2017 10:06	RLD	EPA 8260C
Chloroethane	<0.18	ug/L	0.18	0.58	3	U		05/17/2017 10:06	RLD	EPA 8260C
Chloroform	<0.075	ug/L	0.075	0.28	3	U		05/17/2017 10:06	RLD	EPA 8260C
Chloromethane	0.10	ug/L	0.10	0.33	3	J		05/17/2017 10:06	RLD	EPA 8260C
cis-1,2-Dichloroethene	38	ug/L	0.18	0.58	3			05/17/2017 10:06	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 866669 Sample Description: MW-102D

DNR License/Well #: 4189/038

Sampled: 05/11/2017 1030

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Volatile Organic Compounds 8260 Comments: Suspected methylene chloride laboratory contamination.										
cis-1,3-Dichloropropene	<0.028	ug/L	0.028	0.095	3	U	05/17/2017 10:06	10:06	RLD	EPA 8260C
Dibromochloromethane	<0.075	ug/L	0.075	0.25	3	U	05/17/2017 10:06	10:06	RLD	EPA 8260C
Dibromomethane	<0.13	ug/L	0.13	0.43	3	U	05/17/2017 10:06	10:06	RLD	EPA 8260C
Dichlorodifluoromethane	<0.15	ug/L	0.15	0.48	3	U	05/17/2017 10:06	10:06	RLD	EPA 8260C
Diisopropyl ether	<0.10	ug/L	0.10	0.35	3	U	05/17/2017 10:06	10:06	RLD	EPA 8260C
Ethylbenzene	<0.10	ug/L	0.10	0.38	3	U	05/17/2017 10:06	10:06	RLD	EPA 8260C
Hexachlorobutadiene	<0.13	ug/L	0.13	0.40	3	U	05/17/2017 10:06	10:06	RLD	EPA 8260C
Isopropylbenzene	<0.10	ug/L	0.10	0.30	3	U	05/17/2017 10:06	10:06	RLD	EPA 8260C
m & p-Xylene	<0.18	ug/L	0.18	0.58	3	U	05/17/2017 10:06	10:06	RLD	EPA 8260C
Methyl tert-butyl ether	1.0	ug/L	0.10	0.30	3		05/17/2017 10:06	10:06	RLD	EPA 8260C
Methylene chloride	2.7	ug/L	0.13	0.40	3		05/17/2017 10:06	10:06	RLD	EPA 8260C
n-Butylbenzene	<0.075	ug/L	0.075	0.28	3	U	05/17/2017 10:06	10:06	RLD	EPA 8260C
n-Propylbenzene	<0.10	ug/L	0.10	0.33	3	U	05/17/2017 10:06	10:06	RLD	EPA 8260C
Naphthalene	<0.075	ug/L	0.075	0.25	3	U	05/17/2017 10:06	10:06	RLD	EPA 8260C
o-Xylene	<0.10	ug/L	0.10	0.35	3	U	05/17/2017 10:06	10:06	RLD	EPA 8260C
p-Isopropyltoluene	<0.10	ug/L	0.10	0.33	3	U	05/17/2017 10:06	10:06	RLD	EPA 8260C
sec-Butylbenzene	<0.13	ug/L	0.13	0.40	3	U	05/17/2017 10:06	10:06	RLD	EPA 8260C
Styrene	<0.075	ug/L	0.075	0.28	3	U	05/17/2017 10:06	10:06	RLD	EPA 8260C
tert-Butylbenzene	<0.10	ug/L	0.10	0.35	3	U	05/17/2017 10:06	10:06	RLD	EPA 8260C
Tetrachloroethene	<0.13	ug/L	0.13	0.45	3	U	05/17/2017 10:06	10:06	RLD	EPA 8260C
Tetrahydrofuran	<1.0	ug/L	1.0	3.8	3	U	05/17/2017 10:06	10:06	RLD	EPA 8260C
Toluene	<0.10	ug/L	0.10	0.33	3	U	05/17/2017 10:06	10:06	RLD	EPA 8260C
trans-1,2-Dichloroethene	1.1	ug/L	0.10	0.35	3		05/17/2017 10:06	10:06	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.048	ug/L	0.048	0.16	3	U	05/17/2017 10:06	10:06	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 866669 Sample Description:MW-102D

DNR License/Well #: 4189/038

Sampled: 05/11/2017 1030

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Volatile Organic Compounds 8260 Comments: Suspected methylene chloride laboratory contamination.										
Trichloroethene	0.16	ug/L	0.13	0.43	3	J		05/17/2017 10:06	RLD	EPA 8260C
Trichlorofluoromethane	<0.23	ug/L	0.23	0.35	3	U		05/17/2017 10:06	RLD	EPA 8260C
Vinyl acetate	<0.55	ug/L	0.55	1.8	3	U		05/17/2017 10:06	RLD	EPA 8260C
Vinyl chloride	0.25	ug/L	0.048	0.16	3			05/17/2017 10:06	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications

Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
Louisiana NELAP (primary) ID# ACC20160002
Illinois NELAP Lab ID# 200073
Kansas NELAP Lab ID# E-10368
Virginia NELAP Lab ID# 460203
Maryland Lab ID# WI00061
ISO/IEC 17025-2005 A2LA Cert # 3806.01
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID ACC20160002
Pennsylvania NELAP Lab ID# 68-04201, # 008

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase: OCONOMOWOC, WI
 Project #: 117-7413001.01
 Folder #: 127313
 Purchase Order #:
 Contract #: 2747

Page 1 of 2
 Arrival Temperature: 1.3
 Report Date: 05/26/2017
 Date Received: 05/12/2017
 Reprint Date: 05/26/2017

CT LAB#: 866672	Sample Description: MW-102D	DNR License/Well #: 4189/038	Sampled: 05/11/2017 1030
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Metals Results										
Dissolved Iron	1.72	mg/L	0.059	0.20	1			05/12/2017 21:14	NAH	EPA 6010C
Dissolved Manganese	35.1	ug/L	2.2	7.3	1			05/12/2017 21:14	NAH	EPA 6010C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications
Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
Louisiana NELAP (primary) ID# ACC20160002
Illinois NELAP Lab ID# 200073
Kansas NELAP Lab ID# E-10368
Virginia NELAP Lab ID# 460203
Maryland Lab ID# WI00061
ISO/IEC 17025-2005 A2LA Cert # 3806.01
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID ACC20160002
Pennsylvania NELAP Lab ID# 68-04201, # 008

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase: OCONOMOWOC, WI
 Project #: 117-7413001.01
 Folder #: 127313
 Purchase Order #:
 Contract #: 2747

Page 1 of 5
 Arrival Temperature: 1.3
 Report Date: 05/26/2017
 Date Received: 05/12/2017
 Reprint Date: 05/26/2017

CT LAB#: 866687	Sample Description: MW-102S	DNR License/Well #: 4189/037	Sampled: 05/11/2017 1105
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Field Results										
Dissolved Oxygen (Field)	1.91	mg/L	N/A	N/A	1			05/24/2017 00:00	BMS	
OX/REDOX (Field)	164	MV	N/A	N/A	1			05/24/2017 00:00	BMS	
Color (Field)	CLEAR		N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Conductivity (Field)	2820	umhos/cm	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Groundwater Elevation (Field)	846.51	Feet MSL	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
pH (Field)	6.82	S.U.	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Temperature (Field)	12.84	Deg. C	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Turbidity (Field)	NO		N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Inorganic Results										
Alkalinity Total	460	mg/L	10	34	1			05/22/2017 11:18	SAW	EPA 310.2
Total Chloride	710	mg/L	15	53	22			05/13/2017 00:25	AGK	EPA 9056A
Total Sulfate	30	mg/L	1.0	3.2	1			05/13/2017 00:04	AGK	EPA 9056A
Total Organic Carbon	3.8	mg/L	0.50	1.7	1			05/18/2017 01:49	AGK	EPA 9060A
Metals Results										
Total Iron	<0.034	mg/L	0.034	0.11	1	U	05/15/2017 15:00	05/16/2017 16:00	NAH	EPA 6010C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis
 The groundwater elevation listed above is from the May 2016 sampling round and therefore incorrect for this round.

CT LAB#: 866687 Sample Description: MW-102S

DNR License/Well #: 4189/037

Sampled: 05/11/2017 1105

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Total Manganese	<3.4	ug/L	3.4	11	1	U	05/15/2017 15:00	05/16/2017 16:00	NAH	EPA 6010C
Organic Results										
Acetylene	<0.23	ug/L	0.23	0.77	1	U	05/18/2017 10:46	05/18/2017 15:55	AGK	Mod RSK 175
Ethane	<0.40	ug/L	0.40	1.2	1	U	05/18/2017 10:46	05/18/2017 15:55	AGK	Mod RSK 175
Ethene	<0.50	ug/L	0.50	1.8	1	U	05/18/2017 10:46	05/18/2017 15:55	AGK	Mod RSK 175
Methane	5.6	ug/L	0.40	1.2	1		05/18/2017 10:46	05/18/2017 15:55	AGK	Mod RSK 175
1,1,1,2-Tetrachloroethane	<0.040	ug/L	0.040	0.13	1	U		05/17/2017 12:28	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.050	ug/L	0.050	0.17	1	U		05/17/2017 12:28	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.017	ug/L	0.017	0.057	1	U		05/17/2017 12:28	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.050	ug/L	0.050	0.16	1	U		05/17/2017 12:28	RLD	EPA 8260C
1,1-Dichloroethane	<0.060	ug/L	0.060	0.19	1	U		05/17/2017 12:28	RLD	EPA 8260C
1,1-Dichloroethene	<0.060	ug/L	0.060	0.20	1	U		05/17/2017 12:28	RLD	EPA 8260C
1,1-Dichloropropene	<0.060	ug/L	0.060	0.19	1	U		05/17/2017 12:28	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/17/2017 12:28	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.040	ug/L	0.040	0.14	1	U		05/17/2017 12:28	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.040	ug/L	0.040	0.12	1	U		05/17/2017 12:28	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.040	ug/L	0.040	0.12	1	U		05/17/2017 12:28	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.090	ug/L	0.090	0.29	1	U		05/17/2017 12:28	RLD	EPA 8260C
1,2-Dibromoethane	<0.070	ug/L	0.070	0.23	1	U		05/17/2017 12:28	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/17/2017 12:28	RLD	EPA 8260C
1,2-Dichloroethane	<0.050	ug/L	0.050	0.18	1	U		05/17/2017 12:28	RLD	EPA 8260C
1,2-Dichloropropane	<0.070	ug/L	0.070	0.23	1	U		05/17/2017 12:28	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<0.050	ug/L	0.050	0.16	1	U		05/17/2017 12:28	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/17/2017 12:28	RLD	EPA 8260C
1,3-Dichloropropane	<0.040	ug/L	0.040	0.13	1	U		05/17/2017 12:28	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 866687 Sample Description: MW-102S

DNR License/Well #: 4189/037

Sampled: 05/11/2017 1105

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,4-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/17/2017 12:28	RLD	EPA 8260C
1,4-Dioxane	<7.0	ug/L	7.0	23	1	U		05/17/2017 12:28	RLD	EPA 8260C
2,2-Dichloropropane	<0.050	ug/L	0.050	0.15	1	U		05/17/2017 12:28	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.5	1	U		05/17/2017 12:28	RLD	EPA 8260C
2-Chlorotoluene	<0.030	ug/L	0.030	0.11	1	U		05/17/2017 12:28	RLD	EPA 8260C
2-Hexanone	<0.24	ug/L	0.24	0.81	1	U		05/17/2017 12:28	RLD	EPA 8260C
4-Chlorotoluene	<0.040	ug/L	0.040	0.12	1	U		05/17/2017 12:28	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.24	ug/L	0.24	0.82	1	U		05/17/2017 12:28	RLD	EPA 8260C
Acetone	0.38	ug/L	0.30	1.0	1	J B		05/17/2017 12:28	RLD	EPA 8260C
Benzene	<0.018	ug/L	0.018	0.059	1	U		05/17/2017 12:28	RLD	EPA 8260C
Bromobenzene	<0.040	ug/L	0.040	0.15	1	U		05/17/2017 12:28	RLD	EPA 8260C
Bromochloromethane	<0.030	ug/L	0.030	0.099	1	U		05/17/2017 12:28	RLD	EPA 8260C
Bromodichloromethane	<0.016	ug/L	0.016	0.054	1	U		05/17/2017 12:28	RLD	EPA 8260C
Bromoform	<0.040	ug/L	0.040	0.12	1	U		05/17/2017 12:28	RLD	EPA 8260C
Bromomethane	<0.080	ug/L	0.080	0.28	1	U		05/17/2017 12:28	RLD	EPA 8260C
Carbon disulfide	<0.070	ug/L	0.070	0.25	1	U		05/17/2017 12:28	RLD	EPA 8260C
Carbon tetrachloride	<0.050	ug/L	0.050	0.18	1	U		05/17/2017 12:28	RLD	EPA 8260C
Chlorobenzene	<0.040	ug/L	0.040	0.15	1	U		05/17/2017 12:28	RLD	EPA 8260C
Chloroethane	<0.070	ug/L	0.070	0.23	1	U		05/17/2017 12:28	RLD	EPA 8260C
Chloroform	<0.030	ug/L	0.030	0.11	1	U		05/17/2017 12:28	RLD	EPA 8260C
Chloromethane	<0.040	ug/L	0.040	0.13	1	U		05/17/2017 12:28	RLD	EPA 8260C
cis-1,2-Dichloroethene	<0.070	ug/L	0.070	0.23	1	U		05/17/2017 12:28	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.011	ug/L	0.011	0.038	1	U		05/17/2017 12:28	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1	U		05/17/2017 12:28	RLD	EPA 8260C
Dibromomethane	<0.050	ug/L	0.050	0.17	1	U		05/17/2017 12:28	RLD	EPA 8260C
Dichlorodifluoromethane	<0.060	ug/L	0.060	0.19	1	U		05/17/2017 12:28	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 866687 Sample Description: MW-102S

DNR License/Well #: 4189/037

Sampled: 05/11/2017 1105

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Diisopropyl ether	<0.040	ug/L	0.040	0.14	1	U	05/17/2017 12:28	05/17/2017 12:28	RLD	EPA 8260C
Ethylbenzene	<0.040	ug/L	0.040	0.15	1	U	05/17/2017 12:28	05/17/2017 12:28	RLD	EPA 8260C
Hexachlorobutadiene	<0.050	ug/L	0.050	0.16	1	U	05/17/2017 12:28	05/17/2017 12:28	RLD	EPA 8260C
Isopropylbenzene	<0.040	ug/L	0.040	0.12	1	U	05/17/2017 12:28	05/17/2017 12:28	RLD	EPA 8260C
m & p-Xylene	<0.070	ug/L	0.070	0.23	1	U	05/17/2017 12:28	05/17/2017 12:28	RLD	EPA 8260C
Methyl tert-butyl ether	<0.040	ug/L	0.040	0.12	1	U	05/17/2017 12:28	05/17/2017 12:28	RLD	EPA 8260C
Methylene chloride	<0.050	ug/L	0.050	0.16	1	U	05/17/2017 12:28	05/17/2017 12:28	RLD	EPA 8260C
n-Butylbenzene	<0.030	ug/L	0.030	0.11	1	U	05/17/2017 12:28	05/17/2017 12:28	RLD	EPA 8260C
n-Propylbenzene	<0.040	ug/L	0.040	0.13	1	U	05/17/2017 12:28	05/17/2017 12:28	RLD	EPA 8260C
Naphthalene	<0.030	ug/L	0.030	0.10	1	U	05/17/2017 12:28	05/17/2017 12:28	RLD	EPA 8260C
o-Xylene	<0.040	ug/L	0.040	0.14	1	U	05/17/2017 12:28	05/17/2017 12:28	RLD	EPA 8260C
p-Isopropyltoluene	<0.040	ug/L	0.040	0.13	1	U	05/17/2017 12:28	05/17/2017 12:28	RLD	EPA 8260C
sec-Butylbenzene	<0.050	ug/L	0.050	0.16	1	U	05/17/2017 12:28	05/17/2017 12:28	RLD	EPA 8260C
Styrene	<0.030	ug/L	0.030	0.11	1	U	05/17/2017 12:28	05/17/2017 12:28	RLD	EPA 8260C
tert-Butylbenzene	<0.040	ug/L	0.040	0.14	1	U	05/17/2017 12:28	05/17/2017 12:28	RLD	EPA 8260C
Tetrachloroethene	<0.050	ug/L	0.050	0.18	1	U	05/17/2017 12:28	05/17/2017 12:28	RLD	EPA 8260C
Tetrahydrofuran	<0.40	ug/L	0.40	1.5	1	U	05/17/2017 12:28	05/17/2017 12:28	RLD	EPA 8260C
Toluene	<0.040	ug/L	0.040	0.13	1	U	05/17/2017 12:28	05/17/2017 12:28	RLD	EPA 8260C
trans-1,2-Dichloroethene	<0.040	ug/L	0.040	0.14	1	U	05/17/2017 12:28	05/17/2017 12:28	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.019	ug/L	0.019	0.063	1	U	05/17/2017 12:28	05/17/2017 12:28	RLD	EPA 8260C
Trichloroethene	<0.050	ug/L	0.050	0.17	1	U	05/17/2017 12:28	05/17/2017 12:28	RLD	EPA 8260C
Trichlorofluoromethane	<0.090	ug/L	0.090	0.14	1	U	05/17/2017 12:28	05/17/2017 12:28	RLD	EPA 8260C
Vinyl acetate	<0.22	ug/L	0.22	0.73	1	U	05/17/2017 12:28	05/17/2017 12:28	RLD	EPA 8260C
Vinyl chloride	<0.019	ug/L	0.019	0.064	1	U	05/17/2017 12:28	05/17/2017 12:28	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications

Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
Louisiana NELAP (primary) ID# ACC20160002
Illinois NELAP Lab ID# 200073
Kansas NELAP Lab ID# E-10368
Virginia NELAP Lab ID# 460203
Maryland Lab ID# WI00061
ISO/IEC 17025-2005 A2LA Cert # 3806.01
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID ACC20160002
Pennsylvania NELAP Lab ID# 68-04201, # 008

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase: OCONOMOWOC, WI
 Project #: 117-7413001.01
 Folder #: 127313
 Purchase Order #:
 Contract #: 2747

Page 1 of 2
 Arrival Temperature: 1.3
 Report Date: 05/26/2017
 Date Received: 05/12/2017
 Reprint Date: 05/26/2017

CT LAB#: 866688	Sample Description: MW-102S	DNR License/Well #: 4189/037	Sampled: 05/11/2017 1105
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Metals Results										
Dissolved Iron	<0.059	mg/L	0.059	0.20	1	U		05/12/2017 21:20	NAH	EPA 6010C
Dissolved Manganese	<2.2	ug/L	2.2	7.3	1	U		05/12/2017 21:20	NAH	EPA 6010C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications

Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
Louisiana NELAP (primary) ID# ACC20160002
Illinois NELAP Lab ID# 200073
Kansas NELAP Lab ID# E-10368
Virginia NELAP Lab ID# 460203
Maryland Lab ID# WI00061
ISO/IEC 17025-2005 A2LA Cert # 3806.01
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID ACC20160002
Pennsylvania NELAP Lab ID# 68-04201, # 008

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase: OCONOMOWOC, WI
 Project #: 117-7413001.01
 Folder #: 127313
 Purchase Order #:
 Contract #: 2747

Page 1 of 5
 Arrival Temperature: 1.3
 Report Date: 05/26/2017
 Date Received: 05/12/2017
 Reprint Date: 05/26/2017

CT LAB#: 866689	Sample Description: MW-15B	DNR License/Well #: 4189/034	Sampled: 05/11/2017 1140
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Field Results										
Dissolved Oxygen (Field)	1.40	mg/L	N/A	N/A	1			05/24/2017 00:00	BMS	
OX/REDOX (Field)	-92	MV	N/A	N/A	1			05/24/2017 00:00	BMS	
Color (Field)	CLEAR		N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Conductivity (Field)	549	umhos/cm	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Groundwater Elevation (Field)	841.38	Feet MSL	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
pH (Field)	7.23	S.U.	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Temperature (Field)	13.47	Deg. C	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Turbidity (Field)	NO		N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Inorganic Results										
Alkalinity Total	450	mg/L	10	34	1			05/22/2017 11:19	SAW	EPA 310.2
Total Chloride	8.0	mg/L	0.70	2.4	1			05/13/2017 00:51	AGK	EPA 9056A
Total Sulfate	<1.0	mg/L	1.0	3.2	1	U		05/13/2017 00:51	AGK	EPA 9056A
Total Organic Carbon	<0.50	mg/L	0.50	1.7	1	U		05/18/2017 02:13	AGK	EPA 9060A
Metals Results										
Total Iron	2.33	mg/L	0.034	0.11	1		05/15/2017 15:00	05/16/2017 16:07	NAH	EPA 6010C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

The groundwater elevation listed above is from the May 2016 sampling round and therefore incorrect for this round.

CT LAB#: 866689 Sample Description:MW-15B

DNR License/Well #: 4189/034

Sampled: 05/11/2017 1140

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Total Manganese	348	ug/L	3.4	11	1		05/15/2017 15:00	05/16/2017 16:07	NAH	EPA 6010C
Organic Results										
Acetylene	<0.23	ug/L	0.23	0.77	1	U	05/18/2017 10:46	05/18/2017 15:16	AGK	Mod RSK 175
Ethane	<0.40	ug/L	0.40	1.2	1	U	05/18/2017 10:46	05/18/2017 15:16	AGK	Mod RSK 175
Ethene	<0.50	ug/L	0.50	1.8	1	U	05/18/2017 10:46	05/18/2017 15:16	AGK	Mod RSK 175
Methane	410	ug/L	20	60	50		05/18/2017 10:46	05/18/2017 15:46	AGK	Mod RSK 175
1,1,1,2-Tetrachloroethane	<0.040	ug/L	0.040	0.13	1	U		05/17/2017 12:57	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.050	ug/L	0.050	0.17	1	U		05/17/2017 12:57	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.017	ug/L	0.017	0.057	1	U		05/17/2017 12:57	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.050	ug/L	0.050	0.16	1	U		05/17/2017 12:57	RLD	EPA 8260C
1,1-Dichloroethane	<0.060	ug/L	0.060	0.19	1	U		05/17/2017 12:57	RLD	EPA 8260C
1,1-Dichloroethene	<0.060	ug/L	0.060	0.20	1	U		05/17/2017 12:57	RLD	EPA 8260C
1,1-Dichloropropene	<0.060	ug/L	0.060	0.19	1	U		05/17/2017 12:57	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/17/2017 12:57	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.040	ug/L	0.040	0.14	1	U		05/17/2017 12:57	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.040	ug/L	0.040	0.12	1	U		05/17/2017 12:57	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.040	ug/L	0.040	0.12	1	U		05/17/2017 12:57	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.090	ug/L	0.090	0.29	1	U		05/17/2017 12:57	RLD	EPA 8260C
1,2-Dibromoethane	<0.070	ug/L	0.070	0.23	1	U		05/17/2017 12:57	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/17/2017 12:57	RLD	EPA 8260C
1,2-Dichloroethane	<0.050	ug/L	0.050	0.18	1	U		05/17/2017 12:57	RLD	EPA 8260C
1,2-Dichloropropane	<0.070	ug/L	0.070	0.23	1	U		05/17/2017 12:57	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<0.050	ug/L	0.050	0.16	1	U		05/17/2017 12:57	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/17/2017 12:57	RLD	EPA 8260C
1,3-Dichloropropane	<0.040	ug/L	0.040	0.13	1	U		05/17/2017 12:57	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 866689 Sample Description:MW-15B

DNR License/Well #: 4189/034

Sampled: 05/11/2017 1140

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,4-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/17/2017 12:57	RLD	EPA 8260C
1,4-Dioxane	<7.0	ug/L	7.0	23	1	U		05/17/2017 12:57	RLD	EPA 8260C
2,2-Dichloropropane	<0.050	ug/L	0.050	0.15	1	U		05/17/2017 12:57	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.5	1	U		05/17/2017 12:57	RLD	EPA 8260C
2-Chlorotoluene	<0.030	ug/L	0.030	0.11	1	U		05/17/2017 12:57	RLD	EPA 8260C
2-Hexanone	<0.24	ug/L	0.24	0.81	1	U		05/17/2017 12:57	RLD	EPA 8260C
4-Chlorotoluene	<0.040	ug/L	0.040	0.12	1	U		05/17/2017 12:57	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.24	ug/L	0.24	0.82	1	U		05/17/2017 12:57	RLD	EPA 8260C
Acetone	0.36	ug/L	0.30	1.0	1	J B		05/17/2017 12:57	RLD	EPA 8260C
Benzene	<0.018	ug/L	0.018	0.059	1	U		05/17/2017 12:57	RLD	EPA 8260C
Bromobenzene	<0.040	ug/L	0.040	0.15	1	U		05/17/2017 12:57	RLD	EPA 8260C
Bromochloromethane	<0.030	ug/L	0.030	0.099	1	U		05/17/2017 12:57	RLD	EPA 8260C
Bromodichloromethane	<0.016	ug/L	0.016	0.054	1	U		05/17/2017 12:57	RLD	EPA 8260C
Bromoform	<0.040	ug/L	0.040	0.12	1	U		05/17/2017 12:57	RLD	EPA 8260C
Bromomethane	<0.080	ug/L	0.080	0.28	1	U		05/17/2017 12:57	RLD	EPA 8260C
Carbon disulfide	<0.070	ug/L	0.070	0.25	1	U		05/17/2017 12:57	RLD	EPA 8260C
Carbon tetrachloride	<0.050	ug/L	0.050	0.18	1	U		05/17/2017 12:57	RLD	EPA 8260C
Chlorobenzene	<0.040	ug/L	0.040	0.15	1	U		05/17/2017 12:57	RLD	EPA 8260C
Chloroethane	<0.070	ug/L	0.070	0.23	1	U		05/17/2017 12:57	RLD	EPA 8260C
Chloroform	<0.030	ug/L	0.030	0.11	1	U		05/17/2017 12:57	RLD	EPA 8260C
Chloromethane	<0.040	ug/L	0.040	0.13	1	U		05/17/2017 12:57	RLD	EPA 8260C
cis-1,2-Dichloroethene	<0.070	ug/L	0.070	0.23	1	U		05/17/2017 12:57	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.011	ug/L	0.011	0.038	1	U		05/17/2017 12:57	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1	U		05/17/2017 12:57	RLD	EPA 8260C
Dibromomethane	<0.050	ug/L	0.050	0.17	1	U		05/17/2017 12:57	RLD	EPA 8260C
Dichlorodifluoromethane	<0.060	ug/L	0.060	0.19	1	U		05/17/2017 12:57	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 866689 Sample Description: MW-15B

DNR License/Well #: 4189/034

Sampled: 05/11/2017 1140

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Diisopropyl ether	<0.040	ug/L	0.040	0.14	1	U	05/17/2017 12:57	05/17/2017 12:57	RLD	EPA 8260C
Ethylbenzene	<0.040	ug/L	0.040	0.15	1	U	05/17/2017 12:57	05/17/2017 12:57	RLD	EPA 8260C
Hexachlorobutadiene	<0.050	ug/L	0.050	0.16	1	U	05/17/2017 12:57	05/17/2017 12:57	RLD	EPA 8260C
Isopropylbenzene	<0.040	ug/L	0.040	0.12	1	U	05/17/2017 12:57	05/17/2017 12:57	RLD	EPA 8260C
m & p-Xylene	<0.070	ug/L	0.070	0.23	1	U	05/17/2017 12:57	05/17/2017 12:57	RLD	EPA 8260C
Methyl tert-butyl ether	<0.040	ug/L	0.040	0.12	1	U	05/17/2017 12:57	05/17/2017 12:57	RLD	EPA 8260C
Methylene chloride	<0.050	ug/L	0.050	0.16	1	U	05/17/2017 12:57	05/17/2017 12:57	RLD	EPA 8260C
n-Butylbenzene	<0.030	ug/L	0.030	0.11	1	U	05/17/2017 12:57	05/17/2017 12:57	RLD	EPA 8260C
n-Propylbenzene	<0.040	ug/L	0.040	0.13	1	U	05/17/2017 12:57	05/17/2017 12:57	RLD	EPA 8260C
Naphthalene	<0.030	ug/L	0.030	0.10	1	U	05/17/2017 12:57	05/17/2017 12:57	RLD	EPA 8260C
o-Xylene	<0.040	ug/L	0.040	0.14	1	U	05/17/2017 12:57	05/17/2017 12:57	RLD	EPA 8260C
p-Isopropyltoluene	<0.040	ug/L	0.040	0.13	1	U	05/17/2017 12:57	05/17/2017 12:57	RLD	EPA 8260C
sec-Butylbenzene	<0.050	ug/L	0.050	0.16	1	U	05/17/2017 12:57	05/17/2017 12:57	RLD	EPA 8260C
Styrene	<0.030	ug/L	0.030	0.11	1	U	05/17/2017 12:57	05/17/2017 12:57	RLD	EPA 8260C
tert-Butylbenzene	<0.040	ug/L	0.040	0.14	1	U	05/17/2017 12:57	05/17/2017 12:57	RLD	EPA 8260C
Tetrachloroethene	<0.050	ug/L	0.050	0.18	1	U	05/17/2017 12:57	05/17/2017 12:57	RLD	EPA 8260C
Tetrahydrofuran	<0.40	ug/L	0.40	1.5	1	U	05/17/2017 12:57	05/17/2017 12:57	RLD	EPA 8260C
Toluene	<0.040	ug/L	0.040	0.13	1	U	05/17/2017 12:57	05/17/2017 12:57	RLD	EPA 8260C
trans-1,2-Dichloroethene	<0.040	ug/L	0.040	0.14	1	U	05/17/2017 12:57	05/17/2017 12:57	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.019	ug/L	0.019	0.063	1	U	05/17/2017 12:57	05/17/2017 12:57	RLD	EPA 8260C
Trichloroethene	<0.050	ug/L	0.050	0.17	1	U	05/17/2017 12:57	05/17/2017 12:57	RLD	EPA 8260C
Trichlorofluoromethane	<0.090	ug/L	0.090	0.14	1	U	05/17/2017 12:57	05/17/2017 12:57	RLD	EPA 8260C
Vinyl acetate	<0.22	ug/L	0.22	0.73	1	U	05/17/2017 12:57	05/17/2017 12:57	RLD	EPA 8260C
Vinyl chloride	<0.019	ug/L	0.019	0.064	1	U	05/17/2017 12:57	05/17/2017 12:57	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications

Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
Louisiana NELAP (primary) ID# ACC20160002
Illinois NELAP Lab ID# 200073
Kansas NELAP Lab ID# E-10368
Virginia NELAP Lab ID# 460203
Maryland Lab ID# WI00061
ISO/IEC 17025-2005 A2LA Cert # 3806.01
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID ACC20160002
Pennsylvania NELAP Lab ID# 68-04201, # 008

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase: OCONOMOWOC, WI
 Project #: 117-7413001.01
 Folder #: 127313
 Purchase Order #:
 Contract #: 2747

Page 1 of 2
 Arrival Temperature: 1.3
 Report Date: 05/26/2017
 Date Received: 05/12/2017
 Reprint Date: 05/26/2017

CT LAB#: 866690	Sample Description: MW-15B	DNR License/Well #: 4189/034	Sampled: 05/11/2017 1140
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Metals Results										
Dissolved Iron	2.27	mg/L	0.059	0.20	1			05/12/2017 21:27	NAH	EPA 6010C
Dissolved Manganese	360	ug/L	2.2	7.3	1			05/12/2017 21:27	NAH	EPA 6010C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications

Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
Louisiana NELAP (primary) ID# ACC20160002
Illinois NELAP Lab ID# 200073
Kansas NELAP Lab ID# E-10368
Virginia NELAP Lab ID# 460203
Maryland Lab ID# WI00061
ISO/IEC 17025-2005 A2LA Cert # 3806.01
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID ACC20160002
Pennsylvania NELAP Lab ID# 68-04201, # 008

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase: OCONOMOWOC, WI
 Project #: 117-7413001.01
 Folder #: 127313
 Purchase Order #:
 Contract #: 2747

Page 1 of 5
 Arrival Temperature: 1.3
 Report Date: 05/26/2017
 Date Received: 05/12/2017
 Reprint Date: 05/26/2017

CT LAB#: 866691	Sample Description: MW-15S	DNR License/Well #: 4189/033	Sampled: 05/11/2017 1215
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Field Results										
Dissolved Oxygen (Field)	5.88	mg/L	N/A	N/A	1			05/24/2017 00:00	BMS	
OX/REDOX (Field)	214	MV	N/A	N/A	1			05/24/2017 00:00	BMS	
Color (Field)	CLEAR		N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Conductivity (Field)	463	umhos/cm	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Groundwater Elevation (Field)	846.57	Feet MSL	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
pH (Field)	7.35	S.U.	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Temperature (Field)	12.86	Deg. C	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Turbidity (Field)	NO		N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Inorganic Results										
Alkalinity Total	310	mg/L	10	34	1			05/22/2017 11:23	SAW	EPA 310.2
Total Chloride	25	mg/L	0.70	2.4	1			05/13/2017 01:12	AGK	EPA 9056A
Total Sulfate	6.8	mg/L	1.0	3.2	1			05/13/2017 01:12	AGK	EPA 9056A
Total Organic Carbon	2.9	mg/L	0.50	1.7	1			05/18/2017 02:38	AGK	EPA 9060A
Metals Results										
Total Iron	<0.034	mg/L	0.034	0.11	1	U	05/15/2017 15:00	05/16/2017 16:14	NAH	EPA 6010C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis
 The groundwater elevation listed above is from the May 2016 sampling round and therefore incorrect for this round.

CT LAB#: 866691 Sample Description: MW-15S

DNR License/Well #: 4189/033

Sampled: 05/11/2017 1215

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Total Manganese	30.1	ug/L	3.4	11	1		05/15/2017 15:00	05/16/2017 16:14	NAH	EPA 6010C
Organic Results										
Acetylene	<0.23	ug/L	0.23	0.77	1	U M	05/18/2017 10:46	05/18/2017 12:53	AGK	Mod RSK 175
Ethane	<0.40	ug/L	0.40	1.2	1	U	05/18/2017 10:46	05/18/2017 12:53	AGK	Mod RSK 175
Ethene	<0.50	ug/L	0.50	1.8	1	U M	05/18/2017 10:46	05/18/2017 12:53	AGK	Mod RSK 175
Methane	<0.40	ug/L	0.40	1.2	1	U	05/18/2017 10:46	05/18/2017 12:53	AGK	Mod RSK 175
1,1,1,2-Tetrachloroethane	<0.040	ug/L	0.040	0.13	1	U		05/17/2017 13:25	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.050	ug/L	0.050	0.17	1	U		05/17/2017 13:25	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.017	ug/L	0.017	0.057	1	U		05/17/2017 13:25	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.050	ug/L	0.050	0.16	1	U		05/17/2017 13:25	RLD	EPA 8260C
1,1-Dichloroethane	<0.060	ug/L	0.060	0.19	1	U		05/17/2017 13:25	RLD	EPA 8260C
1,1-Dichloroethene	<0.060	ug/L	0.060	0.20	1	U		05/17/2017 13:25	RLD	EPA 8260C
1,1-Dichloropropene	<0.060	ug/L	0.060	0.19	1	U		05/17/2017 13:25	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/17/2017 13:25	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.040	ug/L	0.040	0.14	1	U		05/17/2017 13:25	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.040	ug/L	0.040	0.12	1	U		05/17/2017 13:25	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.040	ug/L	0.040	0.12	1	U		05/17/2017 13:25	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.090	ug/L	0.090	0.29	1	U		05/17/2017 13:25	RLD	EPA 8260C
1,2-Dibromoethane	<0.070	ug/L	0.070	0.23	1	U		05/17/2017 13:25	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/17/2017 13:25	RLD	EPA 8260C
1,2-Dichloroethane	<0.050	ug/L	0.050	0.18	1	U		05/17/2017 13:25	RLD	EPA 8260C
1,2-Dichloropropane	<0.070	ug/L	0.070	0.23	1	U		05/17/2017 13:25	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<0.050	ug/L	0.050	0.16	1	U		05/17/2017 13:25	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/17/2017 13:25	RLD	EPA 8260C
1,3-Dichloropropane	<0.040	ug/L	0.040	0.13	1	U		05/17/2017 13:25	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 866691 Sample Description: MW-15S

DNR License/Well #: 4189/033

Sampled: 05/11/2017 1215

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,4-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/17/2017 13:25	RLD	EPA 8260C
1,4-Dioxane	<7.0	ug/L	7.0	23	1	U		05/17/2017 13:25	RLD	EPA 8260C
2,2-Dichloropropane	<0.050	ug/L	0.050	0.15	1	U		05/17/2017 13:25	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.5	1	U		05/17/2017 13:25	RLD	EPA 8260C
2-Chlorotoluene	<0.030	ug/L	0.030	0.11	1	U		05/17/2017 13:25	RLD	EPA 8260C
2-Hexanone	<0.24	ug/L	0.24	0.81	1	U		05/17/2017 13:25	RLD	EPA 8260C
4-Chlorotoluene	<0.040	ug/L	0.040	0.12	1	U		05/17/2017 13:25	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.24	ug/L	0.24	0.82	1	U		05/17/2017 13:25	RLD	EPA 8260C
Acetone	0.41	ug/L	0.30	1.0	1	J B		05/17/2017 13:25	RLD	EPA 8260C
Benzene	<0.018	ug/L	0.018	0.059	1	U		05/17/2017 13:25	RLD	EPA 8260C
Bromobenzene	<0.040	ug/L	0.040	0.15	1	U		05/17/2017 13:25	RLD	EPA 8260C
Bromochloromethane	<0.030	ug/L	0.030	0.099	1	U		05/17/2017 13:25	RLD	EPA 8260C
Bromodichloromethane	<0.016	ug/L	0.016	0.054	1	U		05/17/2017 13:25	RLD	EPA 8260C
Bromoform	<0.040	ug/L	0.040	0.12	1	U		05/17/2017 13:25	RLD	EPA 8260C
Bromomethane	<0.080	ug/L	0.080	0.28	1	U		05/17/2017 13:25	RLD	EPA 8260C
Carbon disulfide	<0.070	ug/L	0.070	0.25	1	U		05/17/2017 13:25	RLD	EPA 8260C
Carbon tetrachloride	<0.050	ug/L	0.050	0.18	1	U		05/17/2017 13:25	RLD	EPA 8260C
Chlorobenzene	<0.040	ug/L	0.040	0.15	1	U		05/17/2017 13:25	RLD	EPA 8260C
Chloroethane	<0.070	ug/L	0.070	0.23	1	U		05/17/2017 13:25	RLD	EPA 8260C
Chloroform	<0.030	ug/L	0.030	0.11	1	U		05/17/2017 13:25	RLD	EPA 8260C
Chloromethane	<0.040	ug/L	0.040	0.13	1	U		05/17/2017 13:25	RLD	EPA 8260C
cis-1,2-Dichloroethene	<0.070	ug/L	0.070	0.23	1	U		05/17/2017 13:25	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.011	ug/L	0.011	0.038	1	U		05/17/2017 13:25	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1	U		05/17/2017 13:25	RLD	EPA 8260C
Dibromomethane	<0.050	ug/L	0.050	0.17	1	U		05/17/2017 13:25	RLD	EPA 8260C
Dichlorodifluoromethane	<0.060	ug/L	0.060	0.19	1	U		05/17/2017 13:25	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 866691 Sample Description: MW-15S

DNR License/Well #: 4189/033

Sampled: 05/11/2017 1215

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Diisopropyl ether	<0.040	ug/L	0.040	0.14	1	U	05/17/2017 13:25	05/17/2017 13:25	RLD	EPA 8260C
Ethylbenzene	<0.040	ug/L	0.040	0.15	1	U	05/17/2017 13:25	05/17/2017 13:25	RLD	EPA 8260C
Hexachlorobutadiene	<0.050	ug/L	0.050	0.16	1	U	05/17/2017 13:25	05/17/2017 13:25	RLD	EPA 8260C
Isopropylbenzene	<0.040	ug/L	0.040	0.12	1	U	05/17/2017 13:25	05/17/2017 13:25	RLD	EPA 8260C
m & p-Xylene	<0.070	ug/L	0.070	0.23	1	U	05/17/2017 13:25	05/17/2017 13:25	RLD	EPA 8260C
Methyl tert-butyl ether	<0.040	ug/L	0.040	0.12	1	U	05/17/2017 13:25	05/17/2017 13:25	RLD	EPA 8260C
Methylene chloride	<0.050	ug/L	0.050	0.16	1	U	05/17/2017 13:25	05/17/2017 13:25	RLD	EPA 8260C
n-Butylbenzene	<0.030	ug/L	0.030	0.11	1	U	05/17/2017 13:25	05/17/2017 13:25	RLD	EPA 8260C
n-Propylbenzene	<0.040	ug/L	0.040	0.13	1	U	05/17/2017 13:25	05/17/2017 13:25	RLD	EPA 8260C
Naphthalene	<0.030	ug/L	0.030	0.10	1	U	05/17/2017 13:25	05/17/2017 13:25	RLD	EPA 8260C
o-Xylene	<0.040	ug/L	0.040	0.14	1	U	05/17/2017 13:25	05/17/2017 13:25	RLD	EPA 8260C
p-Isopropyltoluene	<0.040	ug/L	0.040	0.13	1	U	05/17/2017 13:25	05/17/2017 13:25	RLD	EPA 8260C
sec-Butylbenzene	<0.050	ug/L	0.050	0.16	1	U	05/17/2017 13:25	05/17/2017 13:25	RLD	EPA 8260C
Styrene	<0.030	ug/L	0.030	0.11	1	U	05/17/2017 13:25	05/17/2017 13:25	RLD	EPA 8260C
tert-Butylbenzene	<0.040	ug/L	0.040	0.14	1	U	05/17/2017 13:25	05/17/2017 13:25	RLD	EPA 8260C
Tetrachloroethene	<0.050	ug/L	0.050	0.18	1	U	05/17/2017 13:25	05/17/2017 13:25	RLD	EPA 8260C
Tetrahydrofuran	<0.40	ug/L	0.40	1.5	1	U	05/17/2017 13:25	05/17/2017 13:25	RLD	EPA 8260C
Toluene	<0.040	ug/L	0.040	0.13	1	U	05/17/2017 13:25	05/17/2017 13:25	RLD	EPA 8260C
trans-1,2-Dichloroethene	<0.040	ug/L	0.040	0.14	1	U	05/17/2017 13:25	05/17/2017 13:25	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.019	ug/L	0.019	0.063	1	U	05/17/2017 13:25	05/17/2017 13:25	RLD	EPA 8260C
Trichloroethene	<0.050	ug/L	0.050	0.17	1	U	05/17/2017 13:25	05/17/2017 13:25	RLD	EPA 8260C
Trichlorofluoromethane	<0.090	ug/L	0.090	0.14	1	U	05/17/2017 13:25	05/17/2017 13:25	RLD	EPA 8260C
Vinyl acetate	<0.22	ug/L	0.22	0.73	1	U	05/17/2017 13:25	05/17/2017 13:25	RLD	EPA 8260C
Vinyl chloride	<0.019	ug/L	0.019	0.064	1	U	05/17/2017 13:25	05/17/2017 13:25	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

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Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications
Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
Louisiana NELAP (primary) ID# ACC20160002
Illinois NELAP Lab ID# 200073
Kansas NELAP Lab ID# E-10368
Virginia NELAP Lab ID# 460203
Maryland Lab ID# WI00061
ISO/IEC 17025-2005 A2LA Cert # 3806.01
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID ACC20160002
Pennsylvania NELAP Lab ID# 68-04201, # 008

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase: OCONOMOWOC, WI
 Project #: 117-7413001.01
 Folder #: 127313
 Purchase Order #:
 Contract #: 2747

Page 1 of 2
 Arrival Temperature: 1.3
 Report Date: 05/26/2017
 Date Received: 05/12/2017
 Reprint Date: 05/26/2017

CT LAB#: 866692	Sample Description: MW-15S	DNR License/Well #: 4189/033	Sampled: 05/11/2017 1215
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Metals Results										
Dissolved Iron	<0.059	mg/L	0.059	0.20	1	U		05/12/2017 21:35	NAH	EPA 6010C
Dissolved Manganese	<2.2	ug/L	2.2	7.3	1	U		05/12/2017 21:35	NAH	EPA 6010C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

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Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
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T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

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Kansas NELAP Lab ID# E-10368
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ISO/IEC 17025-2005 A2LA Cert # 3806.01
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID ACC20160002
Pennsylvania NELAP Lab ID# 68-04201, # 008

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase: OCONOMOWOC, WI
 Project #: 117-7413001.01
 Folder #: 127313
 Purchase Order #:
 Contract #: 2747

Page 1 of 5
 Arrival Temperature: 1.3
 Report Date: 05/26/2017
 Date Received: 05/12/2017
 Reprint Date: 05/26/2017

CT LAB#: 866693	Sample Description: MW-15D	DNR License/Well #: 4189/025	Sampled: 05/11/2017 1250
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Field Results										
Dissolved Oxygen (Field)	0.03	mg/L	N/A	N/A	1			05/24/2017 00:00	BMS	
OX/REDOX (Field)	133	MV	N/A	N/A	1			05/24/2017 00:00	BMS	
Color (Field)	CLEAR		N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Conductivity (Field)	956	umhos/cm	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Groundwater Elevation (Field)	845.90	Feet MSL	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
pH (Field)	7.06	S.U.	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Temperature (Field)	13.27	Deg. C	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Turbidity (Field)	NO		N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Inorganic Results										
Alkalinity Total	390	mg/L	10	34	1			05/22/2017 11:24	SAW	EPA 310.2
Total Chloride	160	mg/L	3.5	12	5			05/13/2017 01:54	AGK	EPA 9056A
Total Sulfate	44	mg/L	1.0	3.2	1			05/13/2017 01:33	AGK	EPA 9056A
Total Organic Carbon	3.8	mg/L	0.50	1.7	1			05/18/2017 02:50	AGK	EPA 9060A
Metals Results										
Total Iron	0.0510	mg/L	0.034	0.11	1	J	05/15/2017 15:00	05/16/2017 16:21	NAH	EPA 6010C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis
 The groundwater elevation listed above is from the May 2016 sampling round and therefore incorrect for this round.

CT LAB#: 866693 Sample Description:MW-15D

DNR License/Well #: 4189/025

Sampled: 05/11/2017 1250

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Total Manganese	168	ug/L	3.4	11	1		05/15/2017 15:00	05/16/2017 16:21	NAH	EPA 6010C
Organic Results										
Acetylene	<0.23	ug/L	0.23	0.77	1	U	05/18/2017 10:46	05/18/2017 13:21	AGK	Mod RSK 175
Ethane	<0.40	ug/L	0.40	1.2	1	U	05/18/2017 10:46	05/18/2017 13:21	AGK	Mod RSK 175
Ethene	<0.50	ug/L	0.50	1.8	1	U	05/18/2017 10:46	05/18/2017 13:21	AGK	Mod RSK 175
Methane	<0.40	ug/L	0.40	1.2	1	U	05/18/2017 10:46	05/18/2017 13:21	AGK	Mod RSK 175
1,1,1,2-Tetrachloroethane	<0.040	ug/L	0.040	0.13	1	U		05/17/2017 13:53	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.050	ug/L	0.050	0.17	1	U		05/17/2017 13:53	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.017	ug/L	0.017	0.057	1	U		05/17/2017 13:53	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.050	ug/L	0.050	0.16	1	U		05/17/2017 13:53	RLD	EPA 8260C
1,1-Dichloroethane	<0.060	ug/L	0.060	0.19	1	U		05/17/2017 13:53	RLD	EPA 8260C
1,1-Dichloroethene	<0.060	ug/L	0.060	0.20	1	U		05/17/2017 13:53	RLD	EPA 8260C
1,1-Dichloropropene	<0.060	ug/L	0.060	0.19	1	U		05/17/2017 13:53	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/17/2017 13:53	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.040	ug/L	0.040	0.14	1	U		05/17/2017 13:53	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.040	ug/L	0.040	0.12	1	U		05/17/2017 13:53	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.040	ug/L	0.040	0.12	1	U		05/17/2017 13:53	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.090	ug/L	0.090	0.29	1	U		05/17/2017 13:53	RLD	EPA 8260C
1,2-Dibromoethane	<0.070	ug/L	0.070	0.23	1	U		05/17/2017 13:53	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/17/2017 13:53	RLD	EPA 8260C
1,2-Dichloroethane	<0.050	ug/L	0.050	0.18	1	U		05/17/2017 13:53	RLD	EPA 8260C
1,2-Dichloropropane	<0.070	ug/L	0.070	0.23	1	U		05/17/2017 13:53	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<0.050	ug/L	0.050	0.16	1	U		05/17/2017 13:53	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/17/2017 13:53	RLD	EPA 8260C
1,3-Dichloropropane	<0.040	ug/L	0.040	0.13	1	U		05/17/2017 13:53	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 866693 Sample Description: MW-15D

DNR License/Well #: 4189/025

Sampled: 05/11/2017 1250

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,4-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/17/2017 13:53	RLD	EPA 8260C
1,4-Dioxane	<7.0	ug/L	7.0	23	1	U		05/17/2017 13:53	RLD	EPA 8260C
2,2-Dichloropropane	<0.050	ug/L	0.050	0.15	1	U		05/17/2017 13:53	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.5	1	U		05/17/2017 13:53	RLD	EPA 8260C
2-Chlorotoluene	<0.030	ug/L	0.030	0.11	1	U		05/17/2017 13:53	RLD	EPA 8260C
2-Hexanone	<0.24	ug/L	0.24	0.81	1	U		05/17/2017 13:53	RLD	EPA 8260C
4-Chlorotoluene	<0.040	ug/L	0.040	0.12	1	U		05/17/2017 13:53	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.24	ug/L	0.24	0.82	1	U		05/17/2017 13:53	RLD	EPA 8260C
Acetone	0.72	ug/L	0.30	1.0	1	J B		05/17/2017 13:53	RLD	EPA 8260C
Benzene	0.019	ug/L	0.018	0.059	1	J		05/17/2017 13:53	RLD	EPA 8260C
Bromobenzene	<0.040	ug/L	0.040	0.15	1	U		05/17/2017 13:53	RLD	EPA 8260C
Bromochloromethane	<0.030	ug/L	0.030	0.099	1	U		05/17/2017 13:53	RLD	EPA 8260C
Bromodichloromethane	<0.016	ug/L	0.016	0.054	1	U		05/17/2017 13:53	RLD	EPA 8260C
Bromoform	<0.040	ug/L	0.040	0.12	1	U		05/17/2017 13:53	RLD	EPA 8260C
Bromomethane	<0.080	ug/L	0.080	0.28	1	U		05/17/2017 13:53	RLD	EPA 8260C
Carbon disulfide	<0.070	ug/L	0.070	0.25	1	U		05/17/2017 13:53	RLD	EPA 8260C
Carbon tetrachloride	<0.050	ug/L	0.050	0.18	1	U		05/17/2017 13:53	RLD	EPA 8260C
Chlorobenzene	0.23	ug/L	0.040	0.15	1			05/17/2017 13:53	RLD	EPA 8260C
Chloroethane	<0.070	ug/L	0.070	0.23	1	U		05/17/2017 13:53	RLD	EPA 8260C
Chloroform	<0.030	ug/L	0.030	0.11	1	U		05/17/2017 13:53	RLD	EPA 8260C
Chloromethane	0.044	ug/L	0.040	0.13	1	J		05/17/2017 13:53	RLD	EPA 8260C
cis-1,2-Dichloroethene	1.4	ug/L	0.070	0.23	1			05/17/2017 13:53	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.011	ug/L	0.011	0.038	1	U		05/17/2017 13:53	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1	U		05/17/2017 13:53	RLD	EPA 8260C
Dibromomethane	<0.050	ug/L	0.050	0.17	1	U		05/17/2017 13:53	RLD	EPA 8260C
Dichlorodifluoromethane	<0.060	ug/L	0.060	0.19	1	U		05/17/2017 13:53	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 866693 Sample Description: MW-15D

DNR License/Well #: 4189/025

Sampled: 05/11/2017 1250

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Diisopropyl ether	<0.040	ug/L	0.040	0.14	1	U	05/17/2017 13:53	05/17/2017 13:53	RLD	EPA 8260C
Ethylbenzene	<0.040	ug/L	0.040	0.15	1	U	05/17/2017 13:53	05/17/2017 13:53	RLD	EPA 8260C
Hexachlorobutadiene	<0.050	ug/L	0.050	0.16	1	U	05/17/2017 13:53	05/17/2017 13:53	RLD	EPA 8260C
Isopropylbenzene	<0.040	ug/L	0.040	0.12	1	U	05/17/2017 13:53	05/17/2017 13:53	RLD	EPA 8260C
m & p-Xylene	<0.070	ug/L	0.070	0.23	1	U	05/17/2017 13:53	05/17/2017 13:53	RLD	EPA 8260C
Methyl tert-butyl ether	<0.040	ug/L	0.040	0.12	1	U	05/17/2017 13:53	05/17/2017 13:53	RLD	EPA 8260C
Methylene chloride	<0.050	ug/L	0.050	0.16	1	U	05/17/2017 13:53	05/17/2017 13:53	RLD	EPA 8260C
n-Butylbenzene	<0.030	ug/L	0.030	0.11	1	U	05/17/2017 13:53	05/17/2017 13:53	RLD	EPA 8260C
n-Propylbenzene	<0.040	ug/L	0.040	0.13	1	U	05/17/2017 13:53	05/17/2017 13:53	RLD	EPA 8260C
Naphthalene	<0.030	ug/L	0.030	0.10	1	U	05/17/2017 13:53	05/17/2017 13:53	RLD	EPA 8260C
o-Xylene	<0.040	ug/L	0.040	0.14	1	U	05/17/2017 13:53	05/17/2017 13:53	RLD	EPA 8260C
p-Isopropyltoluene	<0.040	ug/L	0.040	0.13	1	U	05/17/2017 13:53	05/17/2017 13:53	RLD	EPA 8260C
sec-Butylbenzene	<0.050	ug/L	0.050	0.16	1	U	05/17/2017 13:53	05/17/2017 13:53	RLD	EPA 8260C
Styrene	<0.030	ug/L	0.030	0.11	1	U	05/17/2017 13:53	05/17/2017 13:53	RLD	EPA 8260C
tert-Butylbenzene	<0.040	ug/L	0.040	0.14	1	U	05/17/2017 13:53	05/17/2017 13:53	RLD	EPA 8260C
Tetrachloroethene	<0.050	ug/L	0.050	0.18	1	U	05/17/2017 13:53	05/17/2017 13:53	RLD	EPA 8260C
Tetrahydrofuran	<0.40	ug/L	0.40	1.5	1	U	05/17/2017 13:53	05/17/2017 13:53	RLD	EPA 8260C
Toluene	<0.040	ug/L	0.040	0.13	1	U	05/17/2017 13:53	05/17/2017 13:53	RLD	EPA 8260C
trans-1,2-Dichloroethene	0.077	ug/L	0.040	0.14	1	J	05/17/2017 13:53	05/17/2017 13:53	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.019	ug/L	0.019	0.063	1	U	05/17/2017 13:53	05/17/2017 13:53	RLD	EPA 8260C
Trichloroethene	10	ug/L	0.050	0.17	1		05/17/2017 13:53	05/17/2017 13:53	RLD	EPA 8260C
Trichlorofluoromethane	<0.090	ug/L	0.090	0.14	1	U	05/17/2017 13:53	05/17/2017 13:53	RLD	EPA 8260C
Vinyl acetate	<0.22	ug/L	0.22	0.73	1	U	05/17/2017 13:53	05/17/2017 13:53	RLD	EPA 8260C
Vinyl chloride	<0.019	ug/L	0.019	0.064	1	U	05/17/2017 13:53	05/17/2017 13:53	RLD	EPA 8260C

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Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
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DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID ACC20160002
Pennsylvania NELAP Lab ID# 68-04201, # 008

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase: OCONOMOWOC, WI
 Project #: 117-7413001.01
 Folder #: 127313
 Purchase Order #:
 Contract #: 2747

Page 1 of 2
 Arrival Temperature: 1.3
 Report Date: 05/26/2017
 Date Received: 05/12/2017
 Reprint Date: 05/26/2017

CT LAB#: 866694	Sample Description: MW-15D	DNR License/Well #: 4189/025	Sampled: 05/11/2017 1250
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Metals Results										
Dissolved Iron	<0.059	mg/L	0.059	0.20	1	U		05/12/2017 21:42	NAH	EPA 6010C
Dissolved Manganese	159	ug/L	2.2	7.3	1			05/12/2017 21:42	NAH	EPA 6010C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

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Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
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P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
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U	Analyte concentration was below detection limit.	
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Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications

Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
Louisiana NELAP (primary) ID# ACC20160002
Illinois NELAP Lab ID# 200073
Kansas NELAP Lab ID# E-10368
Virginia NELAP Lab ID# 460203
Maryland Lab ID# WI00061
ISO/IEC 17025-2005 A2LA Cert # 3806.01
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID ACC20160002
Pennsylvania NELAP Lab ID# 68-04201, # 008

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase: OCONOMOWOC, WI
 Project #: 117-7413001.01
 Folder #: 127313
 Purchase Order #:
 Contract #: 2747

Page 1 of 5
 Arrival Temperature: 1.3
 Report Date: 05/26/2017
 Date Received: 05/12/2017
 Reprint Date: 05/26/2017

CT LAB#: 866695 Sample Description: MW-101S

DNR License/Well #: 4189/035 Sampled: 05/11/2017 1345

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Field Results										
Dissolved Oxygen (Field)	12.90	mg/L	N/A	N/A	1			05/24/2017 00:00	BMS	
OX/REDOX (Field)	223	MV	N/A	N/A	1			05/24/2017 00:00	BMS	
Color (Field)	CLEAR		N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Conductivity (Field)	1100	umhos/cm	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Groundwater Elevation (Field)	847.50	Feet MSL	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
pH (Field)	6.95	S.U.	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Temperature (Field)	12.11	Deg. C	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Turbidity (Field)	NO		N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Inorganic Results										
Alkalinity Total	310	mg/L	10	34	1			05/22/2017 11:25	SAW	EPA 310.2
Total Chloride	300	mg/L	7.0	24	10			05/13/2017 03:24	AGK	EPA 9056A
Total Sulfate	21	mg/L	1.0	3.2	1			05/13/2017 03:03	AGK	EPA 9056A
Total Organic Carbon	<0.50	mg/L	0.50	1.7	1	U		05/18/2017 03:38	AGK	EPA 9060A
Metals Results										
Total Iron	0.569	mg/L	0.034	0.11	1		05/15/2017 15:00	05/16/2017 16:28	NAH	EPA 6010C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis
 The groundwater elevation listed above is from the May 2016 sampling round and therefore incorrect for this round.

CT LAB#: 866695 Sample Description: MW-101S

DNR License/Well #: 4189/035

Sampled: 05/11/2017 1345

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Total Manganese	21.4	ug/L	3.4	11	1		05/15/2017 15:00	05/16/2017 16:28	NAH	EPA 6010C
Organic Results										
Acetylene	<0.23	ug/L	0.23	0.77	1	U	05/18/2017 10:46	05/18/2017 13:30	AGK	Mod RSK 175
Ethane	<0.40	ug/L	0.40	1.2	1	U	05/18/2017 10:46	05/18/2017 13:30	AGK	Mod RSK 175
Ethene	<0.50	ug/L	0.50	1.8	1	U	05/18/2017 10:46	05/18/2017 13:30	AGK	Mod RSK 175
Methane	<0.40	ug/L	0.40	1.2	1	U	05/18/2017 10:46	05/18/2017 13:30	AGK	Mod RSK 175
1,1,1,2-Tetrachloroethane	<0.040	ug/L	0.040	0.13	1	U		05/17/2017 14:22	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.050	ug/L	0.050	0.17	1	U		05/17/2017 14:22	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.017	ug/L	0.017	0.057	1	U		05/17/2017 14:22	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.050	ug/L	0.050	0.16	1	U		05/17/2017 14:22	RLD	EPA 8260C
1,1-Dichloroethane	<0.060	ug/L	0.060	0.19	1	U		05/17/2017 14:22	RLD	EPA 8260C
1,1-Dichloroethene	<0.060	ug/L	0.060	0.20	1	U		05/17/2017 14:22	RLD	EPA 8260C
1,1-Dichloropropene	<0.060	ug/L	0.060	0.19	1	U		05/17/2017 14:22	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/17/2017 14:22	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.040	ug/L	0.040	0.14	1	U		05/17/2017 14:22	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.040	ug/L	0.040	0.12	1	U		05/17/2017 14:22	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.040	ug/L	0.040	0.12	1	U		05/17/2017 14:22	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.090	ug/L	0.090	0.29	1	U		05/17/2017 14:22	RLD	EPA 8260C
1,2-Dibromoethane	<0.070	ug/L	0.070	0.23	1	U		05/17/2017 14:22	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/17/2017 14:22	RLD	EPA 8260C
1,2-Dichloroethane	<0.050	ug/L	0.050	0.18	1	U		05/17/2017 14:22	RLD	EPA 8260C
1,2-Dichloropropane	<0.070	ug/L	0.070	0.23	1	U		05/17/2017 14:22	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<0.050	ug/L	0.050	0.16	1	U		05/17/2017 14:22	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/17/2017 14:22	RLD	EPA 8260C
1,3-Dichloropropane	<0.040	ug/L	0.040	0.13	1	U		05/17/2017 14:22	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 866695 Sample Description: MW-101S

DNR License/Well #: 4189/035

Sampled: 05/11/2017 1345

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,4-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/17/2017 14:22	RLD	EPA 8260C
1,4-Dioxane	<7.0	ug/L	7.0	23	1	U		05/17/2017 14:22	RLD	EPA 8260C
2,2-Dichloropropane	<0.050	ug/L	0.050	0.15	1	U		05/17/2017 14:22	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.5	1	U		05/17/2017 14:22	RLD	EPA 8260C
2-Chlorotoluene	<0.030	ug/L	0.030	0.11	1	U		05/17/2017 14:22	RLD	EPA 8260C
2-Hexanone	<0.24	ug/L	0.24	0.81	1	U		05/17/2017 14:22	RLD	EPA 8260C
4-Chlorotoluene	<0.040	ug/L	0.040	0.12	1	U		05/17/2017 14:22	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.24	ug/L	0.24	0.82	1	U		05/17/2017 14:22	RLD	EPA 8260C
Acetone	0.50	ug/L	0.30	1.0	1	J B		05/17/2017 14:22	RLD	EPA 8260C
Benzene	<0.018	ug/L	0.018	0.059	1	U		05/17/2017 14:22	RLD	EPA 8260C
Bromobenzene	<0.040	ug/L	0.040	0.15	1	U		05/17/2017 14:22	RLD	EPA 8260C
Bromochloromethane	<0.030	ug/L	0.030	0.099	1	U		05/17/2017 14:22	RLD	EPA 8260C
Bromodichloromethane	<0.016	ug/L	0.016	0.054	1	U		05/17/2017 14:22	RLD	EPA 8260C
Bromoform	<0.040	ug/L	0.040	0.12	1	U		05/17/2017 14:22	RLD	EPA 8260C
Bromomethane	<0.080	ug/L	0.080	0.28	1	U		05/17/2017 14:22	RLD	EPA 8260C
Carbon disulfide	<0.070	ug/L	0.070	0.25	1	U		05/17/2017 14:22	RLD	EPA 8260C
Carbon tetrachloride	<0.050	ug/L	0.050	0.18	1	U		05/17/2017 14:22	RLD	EPA 8260C
Chlorobenzene	<0.040	ug/L	0.040	0.15	1	U		05/17/2017 14:22	RLD	EPA 8260C
Chloroethane	<0.070	ug/L	0.070	0.23	1	U		05/17/2017 14:22	RLD	EPA 8260C
Chloroform	<0.030	ug/L	0.030	0.11	1	U		05/17/2017 14:22	RLD	EPA 8260C
Chloromethane	<0.040	ug/L	0.040	0.13	1	U		05/17/2017 14:22	RLD	EPA 8260C
cis-1,2-Dichloroethene	<0.070	ug/L	0.070	0.23	1	U		05/17/2017 14:22	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.011	ug/L	0.011	0.038	1	U		05/17/2017 14:22	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1	U		05/17/2017 14:22	RLD	EPA 8260C
Dibromomethane	<0.050	ug/L	0.050	0.17	1	U		05/17/2017 14:22	RLD	EPA 8260C
Dichlorodifluoromethane	<0.060	ug/L	0.060	0.19	1	U		05/17/2017 14:22	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 866695 Sample Description: MW-101S

DNR License/Well #: 4189/035

Sampled: 05/11/2017 1345

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Diisopropyl ether	<0.040	ug/L	0.040	0.14	1	U	05/17/2017 14:22	05/17/2017 14:22	RLD	EPA 8260C
Ethylbenzene	<0.040	ug/L	0.040	0.15	1	U	05/17/2017 14:22	05/17/2017 14:22	RLD	EPA 8260C
Hexachlorobutadiene	<0.050	ug/L	0.050	0.16	1	U	05/17/2017 14:22	05/17/2017 14:22	RLD	EPA 8260C
Isopropylbenzene	<0.040	ug/L	0.040	0.12	1	U	05/17/2017 14:22	05/17/2017 14:22	RLD	EPA 8260C
m & p-Xylene	<0.070	ug/L	0.070	0.23	1	U	05/17/2017 14:22	05/17/2017 14:22	RLD	EPA 8260C
Methyl tert-butyl ether	<0.040	ug/L	0.040	0.12	1	U	05/17/2017 14:22	05/17/2017 14:22	RLD	EPA 8260C
Methylene chloride	<0.050	ug/L	0.050	0.16	1	U	05/17/2017 14:22	05/17/2017 14:22	RLD	EPA 8260C
n-Butylbenzene	<0.030	ug/L	0.030	0.11	1	U	05/17/2017 14:22	05/17/2017 14:22	RLD	EPA 8260C
n-Propylbenzene	<0.040	ug/L	0.040	0.13	1	U	05/17/2017 14:22	05/17/2017 14:22	RLD	EPA 8260C
Naphthalene	<0.030	ug/L	0.030	0.10	1	U	05/17/2017 14:22	05/17/2017 14:22	RLD	EPA 8260C
o-Xylene	<0.040	ug/L	0.040	0.14	1	U	05/17/2017 14:22	05/17/2017 14:22	RLD	EPA 8260C
p-Isopropyltoluene	<0.040	ug/L	0.040	0.13	1	U	05/17/2017 14:22	05/17/2017 14:22	RLD	EPA 8260C
sec-Butylbenzene	<0.050	ug/L	0.050	0.16	1	U	05/17/2017 14:22	05/17/2017 14:22	RLD	EPA 8260C
Styrene	<0.030	ug/L	0.030	0.11	1	U	05/17/2017 14:22	05/17/2017 14:22	RLD	EPA 8260C
tert-Butylbenzene	<0.040	ug/L	0.040	0.14	1	U	05/17/2017 14:22	05/17/2017 14:22	RLD	EPA 8260C
Tetrachloroethene	<0.050	ug/L	0.050	0.18	1	U	05/17/2017 14:22	05/17/2017 14:22	RLD	EPA 8260C
Tetrahydrofuran	<0.40	ug/L	0.40	1.5	1	U	05/17/2017 14:22	05/17/2017 14:22	RLD	EPA 8260C
Toluene	<0.040	ug/L	0.040	0.13	1	U	05/17/2017 14:22	05/17/2017 14:22	RLD	EPA 8260C
trans-1,2-Dichloroethene	<0.040	ug/L	0.040	0.14	1	U	05/17/2017 14:22	05/17/2017 14:22	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.019	ug/L	0.019	0.063	1	U	05/17/2017 14:22	05/17/2017 14:22	RLD	EPA 8260C
Trichloroethene	<0.050	ug/L	0.050	0.17	1	U	05/17/2017 14:22	05/17/2017 14:22	RLD	EPA 8260C
Trichlorofluoromethane	<0.090	ug/L	0.090	0.14	1	U	05/17/2017 14:22	05/17/2017 14:22	RLD	EPA 8260C
Vinyl acetate	<0.22	ug/L	0.22	0.73	1	U	05/17/2017 14:22	05/17/2017 14:22	RLD	EPA 8260C
Vinyl chloride	<0.019	ug/L	0.019	0.064	1	U	05/17/2017 14:22	05/17/2017 14:22	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications

Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
Louisiana NELAP (primary) ID# ACC20160002
Illinois NELAP Lab ID# 200073
Kansas NELAP Lab ID# E-10368
Virginia NELAP Lab ID# 460203
Maryland Lab ID# WI00061
ISO/IEC 17025-2005 A2LA Cert # 3806.01
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID ACC20160002
Pennsylvania NELAP Lab ID# 68-04201, # 008

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase: OCONOMOWOC, WI
 Project #: 117-7413001.01
 Folder #: 127313
 Purchase Order #:
 Contract #: 2747

Page 1 of 2
 Arrival Temperature: 1.3
 Report Date: 05/26/2017
 Date Received: 05/12/2017
 Reprint Date: 05/26/2017

CT LAB#: 866696	Sample Description: MW-101S	DNR License/Well #: 4189/035	Sampled: 05/11/2017 1345
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Metals Results										
Dissolved Iron	0.281	mg/L	0.059	0.20	1			05/12/2017 21:49	NAH	EPA 6010C
Dissolved Manganese	<2.2	ug/L	2.2	7.3	1	U		05/12/2017 21:49	NAH	EPA 6010C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications

Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
Louisiana NELAP (primary) ID# ACC20160002
Illinois NELAP Lab ID# 200073
Kansas NELAP Lab ID# E-10368
Virginia NELAP Lab ID# 460203
Maryland Lab ID# WI00061
ISO/IEC 17025-2005 A2LA Cert # 3806.01
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID ACC20160002
Pennsylvania NELAP Lab ID# 68-04201, # 008

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase: OCONOMOWOC, WI
 Project #: 117-7413001.01
 Folder #: 127313
 Purchase Order #:
 Contract #: 2747

Page 1 of 5
 Arrival Temperature: 1.3
 Report Date: 05/26/2017
 Date Received: 05/12/2017
 Reprint Date: 05/26/2017

CT LAB#: 866697 Sample Description: MW-101B

DNR License/Well #: 4189/036

Sampled: 05/11/2017 1410

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Field Results										
Dissolved Oxygen (Field)	0.18	mg/L	N/A	N/A	1			05/24/2017 00:00	BMS	
OX/REDOX (Field)	193	MV	N/A	N/A	1			05/24/2017 00:00	BMS	
Color (Field)	CLEAR		N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Conductivity (Field)	926	umhos/cm	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Groundwater Elevation (Field)	846.48	Feet MSL	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
pH (Field)	7.17	S.U.	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Temperature (Field)	13.71	Deg. C	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Turbidity (Field)	NO		N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Inorganic Results										
Alkalinity Total	370	mg/L	10	34	1			05/22/2017 11:26	SAW	EPA 310.2
Total Chloride	170	mg/L	3.5	12	5			05/13/2017 04:12	AGK	EPA 9056A
Total Sulfate	47	mg/L	1.0	3.2	1			05/13/2017 03:51	AGK	EPA 9056A
Total Organic Carbon	3.0	mg/L	0.50	1.7	1			05/18/2017 03:55	AGK	EPA 9060A
Metals Results										
Total Iron	<0.034	mg/L	0.034	0.11	1	U	05/15/2017 15:00	05/16/2017 16:36	NAH	EPA 6010C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

The groundwater elevation listed above is from the May 2016 sampling round and therefore incorrect for this round.

CT LAB#: 866697 Sample Description:MW-101B

DNR License/Well #: 4189/036

Sampled: 05/11/2017 1410

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Total Manganese	69.4	ug/L	3.4	11	1		05/15/2017 15:00	05/16/2017 16:36	NAH	EPA 6010C
Organic Results										
Acetylene	<0.23	ug/L	0.23	0.77	1	U	05/18/2017 10:46	05/18/2017 13:39	AGK	Mod RSK 175
Ethane	<0.40	ug/L	0.40	1.2	1	U	05/18/2017 10:46	05/18/2017 13:39	AGK	Mod RSK 175
Ethene	<0.50	ug/L	0.50	1.8	1	U	05/18/2017 10:46	05/18/2017 13:39	AGK	Mod RSK 175
Methane	41	ug/L	4.0	12	10		05/18/2017 10:46	05/18/2017 13:50	AGK	Mod RSK 175
1,1,1,2-Tetrachloroethane	<0.040	ug/L	0.040	0.13	1	U		05/17/2017 14:50	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.050	ug/L	0.050	0.17	1	U		05/17/2017 14:50	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.017	ug/L	0.017	0.057	1	U		05/17/2017 14:50	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.050	ug/L	0.050	0.16	1	U		05/17/2017 14:50	RLD	EPA 8260C
1,1-Dichloroethane	<0.060	ug/L	0.060	0.19	1	U		05/17/2017 14:50	RLD	EPA 8260C
1,1-Dichloroethene	<0.060	ug/L	0.060	0.20	1	U		05/17/2017 14:50	RLD	EPA 8260C
1,1-Dichloropropene	<0.060	ug/L	0.060	0.19	1	U		05/17/2017 14:50	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/17/2017 14:50	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.040	ug/L	0.040	0.14	1	U		05/17/2017 14:50	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.040	ug/L	0.040	0.12	1	U		05/17/2017 14:50	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.040	ug/L	0.040	0.12	1	U		05/17/2017 14:50	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.090	ug/L	0.090	0.29	1	U		05/17/2017 14:50	RLD	EPA 8260C
1,2-Dibromoethane	<0.070	ug/L	0.070	0.23	1	U		05/17/2017 14:50	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/17/2017 14:50	RLD	EPA 8260C
1,2-Dichloroethane	<0.050	ug/L	0.050	0.18	1	U		05/17/2017 14:50	RLD	EPA 8260C
1,2-Dichloropropane	<0.070	ug/L	0.070	0.23	1	U		05/17/2017 14:50	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<0.050	ug/L	0.050	0.16	1	U		05/17/2017 14:50	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/17/2017 14:50	RLD	EPA 8260C
1,3-Dichloropropane	<0.040	ug/L	0.040	0.13	1	U		05/17/2017 14:50	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 866697 Sample Description: MW-101B

DNR License/Well #: 4189/036

Sampled: 05/11/2017 1410

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,4-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/17/2017 14:50	RLD	EPA 8260C
1,4-Dioxane	<7.0	ug/L	7.0	23	1	U		05/17/2017 14:50	RLD	EPA 8260C
2,2-Dichloropropane	<0.050	ug/L	0.050	0.15	1	U		05/17/2017 14:50	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.5	1	U		05/17/2017 14:50	RLD	EPA 8260C
2-Chlorotoluene	<0.030	ug/L	0.030	0.11	1	U		05/17/2017 14:50	RLD	EPA 8260C
2-Hexanone	<0.24	ug/L	0.24	0.81	1	U		05/17/2017 14:50	RLD	EPA 8260C
4-Chlorotoluene	<0.040	ug/L	0.040	0.12	1	U		05/17/2017 14:50	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.24	ug/L	0.24	0.82	1	U		05/17/2017 14:50	RLD	EPA 8260C
Acetone	0.38	ug/L	0.30	1.0	1	J B		05/17/2017 14:50	RLD	EPA 8260C
Benzene	<0.018	ug/L	0.018	0.059	1	U		05/17/2017 14:50	RLD	EPA 8260C
Bromobenzene	<0.040	ug/L	0.040	0.15	1	U		05/17/2017 14:50	RLD	EPA 8260C
Bromochloromethane	<0.030	ug/L	0.030	0.099	1	U		05/17/2017 14:50	RLD	EPA 8260C
Bromodichloromethane	<0.016	ug/L	0.016	0.054	1	U		05/17/2017 14:50	RLD	EPA 8260C
Bromoform	<0.040	ug/L	0.040	0.12	1	U		05/17/2017 14:50	RLD	EPA 8260C
Bromomethane	<0.080	ug/L	0.080	0.28	1	U		05/17/2017 14:50	RLD	EPA 8260C
Carbon disulfide	<0.070	ug/L	0.070	0.25	1	U		05/17/2017 14:50	RLD	EPA 8260C
Carbon tetrachloride	<0.050	ug/L	0.050	0.18	1	U		05/17/2017 14:50	RLD	EPA 8260C
Chlorobenzene	<0.040	ug/L	0.040	0.15	1	U		05/17/2017 14:50	RLD	EPA 8260C
Chloroethane	<0.070	ug/L	0.070	0.23	1	U		05/17/2017 14:50	RLD	EPA 8260C
Chloroform	<0.030	ug/L	0.030	0.11	1	U		05/17/2017 14:50	RLD	EPA 8260C
Chloromethane	0.041	ug/L	0.040	0.13	1	J		05/17/2017 14:50	RLD	EPA 8260C
cis-1,2-Dichloroethene	0.51	ug/L	0.070	0.23	1			05/17/2017 14:50	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.011	ug/L	0.011	0.038	1	U		05/17/2017 14:50	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1	U		05/17/2017 14:50	RLD	EPA 8260C
Dibromomethane	<0.050	ug/L	0.050	0.17	1	U		05/17/2017 14:50	RLD	EPA 8260C
Dichlorodifluoromethane	<0.060	ug/L	0.060	0.19	1	U		05/17/2017 14:50	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 866697 Sample Description: MW-101B

DNR License/Well #: 4189/036

Sampled: 05/11/2017 1410

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Diisopropyl ether	<0.040	ug/L	0.040	0.14	1	U	05/17/2017 14:50	05/17/2017 14:50	RLD	EPA 8260C
Ethylbenzene	<0.040	ug/L	0.040	0.15	1	U	05/17/2017 14:50	05/17/2017 14:50	RLD	EPA 8260C
Hexachlorobutadiene	<0.050	ug/L	0.050	0.16	1	U	05/17/2017 14:50	05/17/2017 14:50	RLD	EPA 8260C
Isopropylbenzene	<0.040	ug/L	0.040	0.12	1	U	05/17/2017 14:50	05/17/2017 14:50	RLD	EPA 8260C
m & p-Xylene	<0.070	ug/L	0.070	0.23	1	U	05/17/2017 14:50	05/17/2017 14:50	RLD	EPA 8260C
Methyl tert-butyl ether	0.28	ug/L	0.040	0.12	1		05/17/2017 14:50	05/17/2017 14:50	RLD	EPA 8260C
Methylene chloride	<0.050	ug/L	0.050	0.16	1	U	05/17/2017 14:50	05/17/2017 14:50	RLD	EPA 8260C
n-Butylbenzene	<0.030	ug/L	0.030	0.11	1	U	05/17/2017 14:50	05/17/2017 14:50	RLD	EPA 8260C
n-Propylbenzene	<0.040	ug/L	0.040	0.13	1	U	05/17/2017 14:50	05/17/2017 14:50	RLD	EPA 8260C
Naphthalene	<0.030	ug/L	0.030	0.10	1	U	05/17/2017 14:50	05/17/2017 14:50	RLD	EPA 8260C
o-Xylene	<0.040	ug/L	0.040	0.14	1	U	05/17/2017 14:50	05/17/2017 14:50	RLD	EPA 8260C
p-Isopropyltoluene	<0.040	ug/L	0.040	0.13	1	U	05/17/2017 14:50	05/17/2017 14:50	RLD	EPA 8260C
sec-Butylbenzene	<0.050	ug/L	0.050	0.16	1	U	05/17/2017 14:50	05/17/2017 14:50	RLD	EPA 8260C
Styrene	<0.030	ug/L	0.030	0.11	1	U	05/17/2017 14:50	05/17/2017 14:50	RLD	EPA 8260C
tert-Butylbenzene	<0.040	ug/L	0.040	0.14	1	U	05/17/2017 14:50	05/17/2017 14:50	RLD	EPA 8260C
Tetrachloroethene	<0.050	ug/L	0.050	0.18	1	U	05/17/2017 14:50	05/17/2017 14:50	RLD	EPA 8260C
Tetrahydrofuran	<0.40	ug/L	0.40	1.5	1	U	05/17/2017 14:50	05/17/2017 14:50	RLD	EPA 8260C
Toluene	<0.040	ug/L	0.040	0.13	1	U	05/17/2017 14:50	05/17/2017 14:50	RLD	EPA 8260C
trans-1,2-Dichloroethene	<0.040	ug/L	0.040	0.14	1	U	05/17/2017 14:50	05/17/2017 14:50	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.019	ug/L	0.019	0.063	1	U	05/17/2017 14:50	05/17/2017 14:50	RLD	EPA 8260C
Trichloroethene	<0.050	ug/L	0.050	0.17	1	U	05/17/2017 14:50	05/17/2017 14:50	RLD	EPA 8260C
Trichlorofluoromethane	<0.090	ug/L	0.090	0.14	1	U	05/17/2017 14:50	05/17/2017 14:50	RLD	EPA 8260C
Vinyl acetate	<0.22	ug/L	0.22	0.73	1	U	05/17/2017 14:50	05/17/2017 14:50	RLD	EPA 8260C
Vinyl chloride	<0.019	ug/L	0.019	0.064	1	U	05/17/2017 14:50	05/17/2017 14:50	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications

Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
Louisiana NELAP (primary) ID# ACC20160002
Illinois NELAP Lab ID# 200073
Kansas NELAP Lab ID# E-10368
Virginia NELAP Lab ID# 460203
Maryland Lab ID# WI00061
ISO/IEC 17025-2005 A2LA Cert # 3806.01
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID ACC20160002
Pennsylvania NELAP Lab ID# 68-04201, # 008

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase: OCONOMOWOC, WI
 Project #: 117-7413001.01
 Folder #: 127313
 Purchase Order #:
 Contract #: 2747

Page 1 of 2
 Arrival Temperature: 1.3
 Report Date: 05/26/2017
 Date Received: 05/12/2017
 Reprint Date: 05/26/2017

CT LAB#: 866698	Sample Description: MW-101B	DNR License/Well #: 4189/036	Sampled: 05/11/2017 1410
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Metals Results										
Dissolved Iron	<0.059	mg/L	0.059	0.20	1	U		05/12/2017 21:56	NAH	EPA 6010C
Dissolved Manganese	66.7	ug/L	2.2	7.3	1			05/12/2017 21:56	NAH	EPA 6010C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications

Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
Louisiana NELAP (primary) ID# ACC20160002
Illinois NELAP Lab ID# 200073
Kansas NELAP Lab ID# E-10368
Virginia NELAP Lab ID# 460203
Maryland Lab ID# WI00061
ISO/IEC 17025-2005 A2LA Cert # 3806.01
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID ACC20160002
Pennsylvania NELAP Lab ID# 68-04201, # 008

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase: OCONOMOWOC, WI
 Project #: 117-7413001.01
 Folder #: 127313
 Purchase Order #:
 Contract #: 2747

Page 1 of 5
 Arrival Temperature: 1.3
 Report Date: 05/26/2017
 Date Received: 05/12/2017
 Reprint Date: 05/26/2017

CT LAB#: 866699 Sample Description: MW-14DR

DNR License/Well #: 4189/050

Sampled: 05/11/2017 1455

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Field Results										
Dissolved Oxygen (Field)	0.63	mg/L	N/A	N/A	1			05/24/2017 00:00	BMS	
OX/REDOX (Field)	222	MV	N/A	N/A	1			05/24/2017 00:00	BMS	
Color (Field)	CLEAR		N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Conductivity (Field)	829	umhos/cm	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Groundwater Elevation (Field)	846.82	Feet MSL	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
pH (Field)	7.15	S.U.	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Temperature (Field)	12.53	Deg. C	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Turbidity (Field)	NO		N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Inorganic Results										
Alkalinity Total	340	mg/L	10	34	1			05/22/2017 11:27	SAW	EPA 310.2
Total Chloride	150	mg/L	2.8	9.6	4			05/13/2017 05:00	AGK	EPA 9056A
Total Sulfate	24	mg/L	1.0	3.2	1			05/13/2017 04:39	AGK	EPA 9056A
Total Organic Carbon	4.4	mg/L	0.50	1.7	1			05/18/2017 04:08	AGK	EPA 9060A
Metals Results										
Total Iron	0.172	mg/L	0.034	0.11	1		05/15/2017 15:00	05/16/2017 16:43	NAH	EPA 6010C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

The groundwater elevation listed above is from the May 2016 sampling round and therefore incorrect for this round.

CT LAB#: 866699 Sample Description:MW-14DR

DNR License/Well #: 4189/050

Sampled: 05/11/2017 1455

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Total Manganese	190	ug/L	3.4	11	1		05/15/2017 15:00	05/16/2017 16:43	NAH	EPA 6010C
Organic Results										
Acetylene	<0.23	ug/L	0.23	0.77	1	U	05/18/2017 10:46	05/18/2017 13:59	AGK	Mod RSK 175
Ethane	<0.40	ug/L	0.40	1.2	1	U	05/18/2017 10:46	05/18/2017 13:59	AGK	Mod RSK 175
Ethene	<0.50	ug/L	0.50	1.8	1	U	05/18/2017 10:46	05/18/2017 13:59	AGK	Mod RSK 175
Methane	<0.40	ug/L	0.40	1.2	1	U	05/18/2017 10:46	05/18/2017 13:59	AGK	Mod RSK 175
1,1,1,2-Tetrachloroethane	<0.040	ug/L	0.040	0.13	1	U		05/17/2017 15:18	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.050	ug/L	0.050	0.17	1	U		05/17/2017 15:18	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.017	ug/L	0.017	0.057	1	U		05/17/2017 15:18	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.050	ug/L	0.050	0.16	1	U		05/17/2017 15:18	RLD	EPA 8260C
1,1-Dichloroethane	<0.060	ug/L	0.060	0.19	1	U		05/17/2017 15:18	RLD	EPA 8260C
1,1-Dichloroethene	<0.060	ug/L	0.060	0.20	1	U		05/17/2017 15:18	RLD	EPA 8260C
1,1-Dichloropropene	<0.060	ug/L	0.060	0.19	1	U		05/17/2017 15:18	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/17/2017 15:18	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.040	ug/L	0.040	0.14	1	U		05/17/2017 15:18	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.040	ug/L	0.040	0.12	1	U		05/17/2017 15:18	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.040	ug/L	0.040	0.12	1	U		05/17/2017 15:18	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.090	ug/L	0.090	0.29	1	U		05/17/2017 15:18	RLD	EPA 8260C
1,2-Dibromoethane	<0.070	ug/L	0.070	0.23	1	U		05/17/2017 15:18	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/17/2017 15:18	RLD	EPA 8260C
1,2-Dichloroethane	<0.050	ug/L	0.050	0.18	1	U		05/17/2017 15:18	RLD	EPA 8260C
1,2-Dichloropropane	<0.070	ug/L	0.070	0.23	1	U		05/17/2017 15:18	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<0.050	ug/L	0.050	0.16	1	U		05/17/2017 15:18	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/17/2017 15:18	RLD	EPA 8260C
1,3-Dichloropropane	<0.040	ug/L	0.040	0.13	1	U		05/17/2017 15:18	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 866699 Sample Description: MW-14DR

DNR License/Well #: 4189/050

Sampled: 05/11/2017 1455

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,4-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/17/2017 15:18	RLD	EPA 8260C
1,4-Dioxane	<7.0	ug/L	7.0	23	1	U		05/17/2017 15:18	RLD	EPA 8260C
2,2-Dichloropropane	<0.050	ug/L	0.050	0.15	1	U		05/17/2017 15:18	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.5	1	U		05/17/2017 15:18	RLD	EPA 8260C
2-Chlorotoluene	<0.030	ug/L	0.030	0.11	1	U		05/17/2017 15:18	RLD	EPA 8260C
2-Hexanone	<0.24	ug/L	0.24	0.81	1	U		05/17/2017 15:18	RLD	EPA 8260C
4-Chlorotoluene	<0.040	ug/L	0.040	0.12	1	U		05/17/2017 15:18	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.24	ug/L	0.24	0.82	1	U		05/17/2017 15:18	RLD	EPA 8260C
Acetone	0.38	ug/L	0.30	1.0	1	J B		05/17/2017 15:18	RLD	EPA 8260C
Benzene	<0.018	ug/L	0.018	0.059	1	U		05/17/2017 15:18	RLD	EPA 8260C
Bromobenzene	<0.040	ug/L	0.040	0.15	1	U		05/17/2017 15:18	RLD	EPA 8260C
Bromochloromethane	<0.030	ug/L	0.030	0.099	1	U		05/17/2017 15:18	RLD	EPA 8260C
Bromodichloromethane	<0.016	ug/L	0.016	0.054	1	U		05/17/2017 15:18	RLD	EPA 8260C
Bromoform	<0.040	ug/L	0.040	0.12	1	U		05/17/2017 15:18	RLD	EPA 8260C
Bromomethane	<0.080	ug/L	0.080	0.28	1	U		05/17/2017 15:18	RLD	EPA 8260C
Carbon disulfide	<0.070	ug/L	0.070	0.25	1	U		05/17/2017 15:18	RLD	EPA 8260C
Carbon tetrachloride	<0.050	ug/L	0.050	0.18	1	U		05/17/2017 15:18	RLD	EPA 8260C
Chlorobenzene	<0.040	ug/L	0.040	0.15	1	U		05/17/2017 15:18	RLD	EPA 8260C
Chloroethane	<0.070	ug/L	0.070	0.23	1	U		05/17/2017 15:18	RLD	EPA 8260C
Chloroform	<0.030	ug/L	0.030	0.11	1	U		05/17/2017 15:18	RLD	EPA 8260C
Chloromethane	<0.040	ug/L	0.040	0.13	1	U		05/17/2017 15:18	RLD	EPA 8260C
cis-1,2-Dichloroethene	<0.070	ug/L	0.070	0.23	1	U		05/17/2017 15:18	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.011	ug/L	0.011	0.038	1	U		05/17/2017 15:18	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1	U		05/17/2017 15:18	RLD	EPA 8260C
Dibromomethane	<0.050	ug/L	0.050	0.17	1	U		05/17/2017 15:18	RLD	EPA 8260C
Dichlorodifluoromethane	<0.060	ug/L	0.060	0.19	1	U		05/17/2017 15:18	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 866699 Sample Description: MW-14DR

DNR License/Well #: 4189/050

Sampled: 05/11/2017 1455

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Diisopropyl ether	<0.040	ug/L	0.040	0.14	1	U	05/17/2017 15:18	05/17/2017 15:18	RLD	EPA 8260C
Ethylbenzene	<0.040	ug/L	0.040	0.15	1	U	05/17/2017 15:18	05/17/2017 15:18	RLD	EPA 8260C
Hexachlorobutadiene	<0.050	ug/L	0.050	0.16	1	U	05/17/2017 15:18	05/17/2017 15:18	RLD	EPA 8260C
Isopropylbenzene	<0.040	ug/L	0.040	0.12	1	U	05/17/2017 15:18	05/17/2017 15:18	RLD	EPA 8260C
m & p-Xylene	<0.070	ug/L	0.070	0.23	1	U	05/17/2017 15:18	05/17/2017 15:18	RLD	EPA 8260C
Methyl tert-butyl ether	<0.040	ug/L	0.040	0.12	1	U	05/17/2017 15:18	05/17/2017 15:18	RLD	EPA 8260C
Methylene chloride	<0.050	ug/L	0.050	0.16	1	U	05/17/2017 15:18	05/17/2017 15:18	RLD	EPA 8260C
n-Butylbenzene	<0.030	ug/L	0.030	0.11	1	U	05/17/2017 15:18	05/17/2017 15:18	RLD	EPA 8260C
n-Propylbenzene	<0.040	ug/L	0.040	0.13	1	U	05/17/2017 15:18	05/17/2017 15:18	RLD	EPA 8260C
Naphthalene	<0.030	ug/L	0.030	0.10	1	U	05/17/2017 15:18	05/17/2017 15:18	RLD	EPA 8260C
o-Xylene	<0.040	ug/L	0.040	0.14	1	U	05/17/2017 15:18	05/17/2017 15:18	RLD	EPA 8260C
p-Isopropyltoluene	<0.040	ug/L	0.040	0.13	1	U	05/17/2017 15:18	05/17/2017 15:18	RLD	EPA 8260C
sec-Butylbenzene	<0.050	ug/L	0.050	0.16	1	U	05/17/2017 15:18	05/17/2017 15:18	RLD	EPA 8260C
Styrene	<0.030	ug/L	0.030	0.11	1	U	05/17/2017 15:18	05/17/2017 15:18	RLD	EPA 8260C
tert-Butylbenzene	<0.040	ug/L	0.040	0.14	1	U	05/17/2017 15:18	05/17/2017 15:18	RLD	EPA 8260C
Tetrachloroethene	<0.050	ug/L	0.050	0.18	1	U	05/17/2017 15:18	05/17/2017 15:18	RLD	EPA 8260C
Tetrahydrofuran	<0.40	ug/L	0.40	1.5	1	U	05/17/2017 15:18	05/17/2017 15:18	RLD	EPA 8260C
Toluene	<0.040	ug/L	0.040	0.13	1	U	05/17/2017 15:18	05/17/2017 15:18	RLD	EPA 8260C
trans-1,2-Dichloroethene	<0.040	ug/L	0.040	0.14	1	U	05/17/2017 15:18	05/17/2017 15:18	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.019	ug/L	0.019	0.063	1	U	05/17/2017 15:18	05/17/2017 15:18	RLD	EPA 8260C
Trichloroethene	0.18	ug/L	0.050	0.17	1		05/17/2017 15:18	05/17/2017 15:18	RLD	EPA 8260C
Trichlorofluoromethane	<0.090	ug/L	0.090	0.14	1	U	05/17/2017 15:18	05/17/2017 15:18	RLD	EPA 8260C
Vinyl acetate	<0.22	ug/L	0.22	0.73	1	U	05/17/2017 15:18	05/17/2017 15:18	RLD	EPA 8260C
Vinyl chloride	<0.019	ug/L	0.019	0.064	1	U	05/17/2017 15:18	05/17/2017 15:18	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications
Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
Louisiana NELAP (primary) ID# ACC20160002
Illinois NELAP Lab ID# 200073
Kansas NELAP Lab ID# E-10368
Virginia NELAP Lab ID# 460203
Maryland Lab ID# WI00061
ISO/IEC 17025-2005 A2LA Cert # 3806.01
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID ACC20160002
Pennsylvania NELAP Lab ID# 68-04201, # 008

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase: OCONOMOWOC, WI
 Project #: 117-7413001.01
 Folder #: 127313
 Purchase Order #:
 Contract #: 2747

Page 1 of 2
 Arrival Temperature: 1.3
 Report Date: 05/26/2017
 Date Received: 05/12/2017
 Reprint Date: 05/26/2017

CT LAB#: 866700	Sample Description: MW-14DR	DNR License/Well #: 4189/050	Sampled: 05/11/2017 1455
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Metals Results										
Dissolved Iron	<0.059	mg/L	0.059	0.20	1	U		05/12/2017 22:03	NAH	EPA 6010C
Dissolved Manganese	85.8	ug/L	2.2	7.3	1			05/12/2017 22:03	NAH	EPA 6010C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications

Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
Louisiana NELAP (primary) ID# ACC20160002
Illinois NELAP Lab ID# 200073
Kansas NELAP Lab ID# E-10368
Virginia NELAP Lab ID# 460203
Maryland Lab ID# WI00061
ISO/IEC 17025-2005 A2LA Cert # 3806.01
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID ACC20160002
Pennsylvania NELAP Lab ID# 68-04201, # 008

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase: OCONOMOWOC, WI
 Project #: 117-7413001.01
 Folder #: 127313
 Purchase Order #:
 Contract #: 2747

Page 1 of 5
 Arrival Temperature: 1.3
 Report Date: 05/26/2017
 Date Received: 05/12/2017
 Reprint Date: 05/26/2017

CT LAB#: 866702	Sample Description: MW-4S	DNR License/Well #: 4189/007	Sampled: 05/11/2017 1530
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Field Results										
Dissolved Oxygen (Field)	0.49	mg/L	N/A	N/A	1			05/24/2017 00:00	BMS	
OX/REDOX (Field)	246	MV	N/A	N/A	1			05/24/2017 00:00	BMS	
Color (Field)	CLEAR		N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Conductivity (Field)	1140	umhos/cm	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Groundwater Elevation (Field)	847.87	Feet MSL	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
pH (Field)	6.90	S.U.	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Temperature (Field)	11.69	Deg. C	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Turbidity (Field)	NO		N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Inorganic Results										
Alkalinity Total	600	mg/L	10	34	1			05/22/2017 11:30	SAW	EPA 310.2
Total Chloride	150	mg/L	2.8	9.6	4			05/13/2017 05:48	AGK	EPA 9056A
Total Sulfate	69	mg/L	1.0	3.2	1			05/13/2017 05:27	AGK	EPA 9056A
Total Organic Carbon	7.7	mg/L	0.50	1.7	1			05/18/2017 04:21	AGK	EPA 9060A
Metals Results										
Total Iron	0.242	mg/L	0.034	0.11	1		05/15/2017 15:00	05/16/2017 16:50	NAH	EPA 6010C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis
 The groundwater elevation listed above is from the May 2016 sampling round and therefore incorrect for this round.

CT LAB#: 866702 Sample Description: MW-4S

DNR License/Well #: 4189/007

Sampled: 05/11/2017 1530

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Total Manganese	151	ug/L	3.4	11	1		05/15/2017 15:00	05/16/2017 16:50	NAH	EPA 6010C
Organic Results										
Acetylene	<0.23	ug/L	0.23	0.77	1	U	05/18/2017 10:46	05/18/2017 14:10	AGK	Mod RSK 175
Ethane	<0.40	ug/L	0.40	1.2	1	U	05/18/2017 10:46	05/18/2017 14:10	AGK	Mod RSK 175
Ethene	<0.50	ug/L	0.50	1.8	1	U	05/18/2017 10:46	05/18/2017 14:10	AGK	Mod RSK 175
Methane	3.1	ug/L	0.40	1.2	1		05/18/2017 10:46	05/18/2017 14:10	AGK	Mod RSK 175
1,1,1,2-Tetrachloroethane	<0.040	ug/L	0.040	0.13	1	U		05/17/2017 15:46	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.050	ug/L	0.050	0.17	1	U		05/17/2017 15:46	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.017	ug/L	0.017	0.057	1	U		05/17/2017 15:46	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.050	ug/L	0.050	0.16	1	U		05/17/2017 15:46	RLD	EPA 8260C
1,1-Dichloroethane	<0.060	ug/L	0.060	0.19	1	U		05/17/2017 15:46	RLD	EPA 8260C
1,1-Dichloroethene	<0.060	ug/L	0.060	0.20	1	U		05/17/2017 15:46	RLD	EPA 8260C
1,1-Dichloropropene	<0.060	ug/L	0.060	0.19	1	U		05/17/2017 15:46	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/17/2017 15:46	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.040	ug/L	0.040	0.14	1	U		05/17/2017 15:46	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.040	ug/L	0.040	0.12	1	U		05/17/2017 15:46	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.040	ug/L	0.040	0.12	1	U		05/17/2017 15:46	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.090	ug/L	0.090	0.29	1	U		05/17/2017 15:46	RLD	EPA 8260C
1,2-Dibromoethane	<0.070	ug/L	0.070	0.23	1	U		05/17/2017 15:46	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/17/2017 15:46	RLD	EPA 8260C
1,2-Dichloroethane	<0.050	ug/L	0.050	0.18	1	U		05/17/2017 15:46	RLD	EPA 8260C
1,2-Dichloropropane	<0.070	ug/L	0.070	0.23	1	U		05/17/2017 15:46	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<0.050	ug/L	0.050	0.16	1	U		05/17/2017 15:46	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/17/2017 15:46	RLD	EPA 8260C
1,3-Dichloropropane	<0.040	ug/L	0.040	0.13	1	U		05/17/2017 15:46	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 866702 Sample Description: MW-4S

DNR License/Well #: 4189/007

Sampled: 05/11/2017 1530

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,4-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/17/2017 15:46	RLD	EPA 8260C
1,4-Dioxane	<7.0	ug/L	7.0	23	1	U		05/17/2017 15:46	RLD	EPA 8260C
2,2-Dichloropropane	<0.050	ug/L	0.050	0.15	1	U		05/17/2017 15:46	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.5	1	U		05/17/2017 15:46	RLD	EPA 8260C
2-Chlorotoluene	<0.030	ug/L	0.030	0.11	1	U		05/17/2017 15:46	RLD	EPA 8260C
2-Hexanone	<0.24	ug/L	0.24	0.81	1	U		05/17/2017 15:46	RLD	EPA 8260C
4-Chlorotoluene	<0.040	ug/L	0.040	0.12	1	U		05/17/2017 15:46	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.24	ug/L	0.24	0.82	1	U		05/17/2017 15:46	RLD	EPA 8260C
Acetone	0.53	ug/L	0.30	1.0	1	J B		05/17/2017 15:46	RLD	EPA 8260C
Benzene	<0.018	ug/L	0.018	0.059	1	U		05/17/2017 15:46	RLD	EPA 8260C
Bromobenzene	<0.040	ug/L	0.040	0.15	1	U		05/17/2017 15:46	RLD	EPA 8260C
Bromochloromethane	<0.030	ug/L	0.030	0.099	1	U		05/17/2017 15:46	RLD	EPA 8260C
Bromodichloromethane	<0.016	ug/L	0.016	0.054	1	U		05/17/2017 15:46	RLD	EPA 8260C
Bromoform	<0.040	ug/L	0.040	0.12	1	U		05/17/2017 15:46	RLD	EPA 8260C
Bromomethane	<0.080	ug/L	0.080	0.28	1	U		05/17/2017 15:46	RLD	EPA 8260C
Carbon disulfide	<0.070	ug/L	0.070	0.25	1	U		05/17/2017 15:46	RLD	EPA 8260C
Carbon tetrachloride	<0.050	ug/L	0.050	0.18	1	U		05/17/2017 15:46	RLD	EPA 8260C
Chlorobenzene	<0.040	ug/L	0.040	0.15	1	U		05/17/2017 15:46	RLD	EPA 8260C
Chloroethane	<0.070	ug/L	0.070	0.23	1	U		05/17/2017 15:46	RLD	EPA 8260C
Chloroform	<0.030	ug/L	0.030	0.11	1	U		05/17/2017 15:46	RLD	EPA 8260C
Chloromethane	0.043	ug/L	0.040	0.13	1	J		05/17/2017 15:46	RLD	EPA 8260C
cis-1,2-Dichloroethene	<0.070	ug/L	0.070	0.23	1	U		05/17/2017 15:46	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.011	ug/L	0.011	0.038	1	U		05/17/2017 15:46	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1	U		05/17/2017 15:46	RLD	EPA 8260C
Dibromomethane	<0.050	ug/L	0.050	0.17	1	U		05/17/2017 15:46	RLD	EPA 8260C
Dichlorodifluoromethane	<0.060	ug/L	0.060	0.19	1	U		05/17/2017 15:46	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 866702 Sample Description:MW-4S

DNR License/Well #: 4189/007

Sampled: 05/11/2017 1530

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Diisopropyl ether	<0.040	ug/L	0.040	0.14	1	U	05/17/2017 15:46	05/17/2017 15:46	RLD	EPA 8260C
Ethylbenzene	<0.040	ug/L	0.040	0.15	1	U	05/17/2017 15:46	05/17/2017 15:46	RLD	EPA 8260C
Hexachlorobutadiene	<0.050	ug/L	0.050	0.16	1	U	05/17/2017 15:46	05/17/2017 15:46	RLD	EPA 8260C
Isopropylbenzene	<0.040	ug/L	0.040	0.12	1	U	05/17/2017 15:46	05/17/2017 15:46	RLD	EPA 8260C
m & p-Xylene	<0.070	ug/L	0.070	0.23	1	U	05/17/2017 15:46	05/17/2017 15:46	RLD	EPA 8260C
Methyl tert-butyl ether	<0.040	ug/L	0.040	0.12	1	U	05/17/2017 15:46	05/17/2017 15:46	RLD	EPA 8260C
Methylene chloride	<0.050	ug/L	0.050	0.16	1	U	05/17/2017 15:46	05/17/2017 15:46	RLD	EPA 8260C
n-Butylbenzene	<0.030	ug/L	0.030	0.11	1	U	05/17/2017 15:46	05/17/2017 15:46	RLD	EPA 8260C
n-Propylbenzene	<0.040	ug/L	0.040	0.13	1	U	05/17/2017 15:46	05/17/2017 15:46	RLD	EPA 8260C
Naphthalene	<0.030	ug/L	0.030	0.10	1	U	05/17/2017 15:46	05/17/2017 15:46	RLD	EPA 8260C
o-Xylene	<0.040	ug/L	0.040	0.14	1	U	05/17/2017 15:46	05/17/2017 15:46	RLD	EPA 8260C
p-Isopropyltoluene	<0.040	ug/L	0.040	0.13	1	U	05/17/2017 15:46	05/17/2017 15:46	RLD	EPA 8260C
sec-Butylbenzene	<0.050	ug/L	0.050	0.16	1	U	05/17/2017 15:46	05/17/2017 15:46	RLD	EPA 8260C
Styrene	<0.030	ug/L	0.030	0.11	1	U	05/17/2017 15:46	05/17/2017 15:46	RLD	EPA 8260C
tert-Butylbenzene	<0.040	ug/L	0.040	0.14	1	U	05/17/2017 15:46	05/17/2017 15:46	RLD	EPA 8260C
Tetrachloroethene	<0.050	ug/L	0.050	0.18	1	U	05/17/2017 15:46	05/17/2017 15:46	RLD	EPA 8260C
Tetrahydrofuran	<0.40	ug/L	0.40	1.5	1	U	05/17/2017 15:46	05/17/2017 15:46	RLD	EPA 8260C
Toluene	<0.040	ug/L	0.040	0.13	1	U	05/17/2017 15:46	05/17/2017 15:46	RLD	EPA 8260C
trans-1,2-Dichloroethene	<0.040	ug/L	0.040	0.14	1	U	05/17/2017 15:46	05/17/2017 15:46	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.019	ug/L	0.019	0.063	1	U	05/17/2017 15:46	05/17/2017 15:46	RLD	EPA 8260C
Trichloroethene	<0.050	ug/L	0.050	0.17	1	U	05/17/2017 15:46	05/17/2017 15:46	RLD	EPA 8260C
Trichlorofluoromethane	<0.090	ug/L	0.090	0.14	1	U	05/17/2017 15:46	05/17/2017 15:46	RLD	EPA 8260C
Vinyl acetate	<0.22	ug/L	0.22	0.73	1	U	05/17/2017 15:46	05/17/2017 15:46	RLD	EPA 8260C
Vinyl chloride	<0.019	ug/L	0.019	0.064	1	U	05/17/2017 15:46	05/17/2017 15:46	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

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Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications

Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
Louisiana NELAP (primary) ID# ACC20160002
Illinois NELAP Lab ID# 200073
Kansas NELAP Lab ID# E-10368
Virginia NELAP Lab ID# 460203
Maryland Lab ID# WI00061
ISO/IEC 17025-2005 A2LA Cert # 3806.01
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID ACC20160002
Pennsylvania NELAP Lab ID# 68-04201, # 008

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase: OCONOMOWOC, WI
 Project #: 117-7413001.01
 Folder #: 127313
 Purchase Order #:
 Contract #: 2747

Page 1 of 2
 Arrival Temperature: 1.3
 Report Date: 05/26/2017
 Date Received: 05/12/2017
 Reprint Date: 05/26/2017

CT LAB#: 866703	Sample Description: MW-4S	DNR License/Well #: 4189/007	Sampled: 05/11/2017 1530
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Metals Results										
Dissolved Iron	0.146	mg/L	0.059	0.20	1	J		05/12/2017 22:10	NAH	EPA 6010C
Dissolved Manganese	149	ug/L	2.2	7.3	1			05/12/2017 22:10	NAH	EPA 6010C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

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Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

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Maryland Lab ID# WI00061
ISO/IEC 17025-2005 A2LA Cert # 3806.01
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID ACC20160002
Pennsylvania NELAP Lab ID# 68-04201, # 008

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase: OCONOMOWOC, WI
 Project #: 117-7413001.01
 Folder #: 127313
 Purchase Order #:
 Contract #: 2747

Page 1 of 5
 Arrival Temperature: 1.3
 Report Date: 05/26/2017
 Date Received: 05/12/2017
 Reprint Date: 05/26/2017

CT LAB#: 866704	Sample Description: TB-3	DNR License/Well #: 4189/999	Sampled: 05/11/2017
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Organic Results										
1,1,1,2-Tetrachloroethane	<0.040	ug/L	0.040	0.13	1	U	05/17/2017 17:51	17:51	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.050	ug/L	0.050	0.17	1	U	05/17/2017 17:51	17:51	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.017	ug/L	0.017	0.057	1	U	05/17/2017 17:51	17:51	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.050	ug/L	0.050	0.16	1	U	05/17/2017 17:51	17:51	RLD	EPA 8260C
1,1-Dichloroethane	<0.060	ug/L	0.060	0.19	1	U	05/17/2017 17:51	17:51	RLD	EPA 8260C
1,1-Dichloroethene	<0.060	ug/L	0.060	0.20	1	U	05/17/2017 17:51	17:51	RLD	EPA 8260C
1,1-Dichloropropene	<0.060	ug/L	0.060	0.19	1	U	05/17/2017 17:51	17:51	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.040	ug/L	0.040	0.13	1	U	05/17/2017 17:51	17:51	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.040	ug/L	0.040	0.14	1	U	05/17/2017 17:51	17:51	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.040	ug/L	0.040	0.12	1	U	05/17/2017 17:51	17:51	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.040	ug/L	0.040	0.12	1	U	05/17/2017 17:51	17:51	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.090	ug/L	0.090	0.29	1	U	05/17/2017 17:51	17:51	RLD	EPA 8260C
1,2-Dibromoethane	<0.070	ug/L	0.070	0.23	1	U	05/17/2017 17:51	17:51	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U	05/17/2017 17:51	17:51	RLD	EPA 8260C
1,2-Dichloroethane	<0.050	ug/L	0.050	0.18	1	U	05/17/2017 17:51	17:51	RLD	EPA 8260C
1,2-Dichloropropane	<0.070	ug/L	0.070	0.23	1	U	05/17/2017 17:51	17:51	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 866704 Sample Description:TB-3

DNR License/Well #: 4189/999

Sampled: 05/11/2017

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,3,5-Trimethylbenzene	<0.050	ug/L	0.050	0.16	1	U		05/17/2017 17:51	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/17/2017 17:51	RLD	EPA 8260C
1,3-Dichloropropane	<0.040	ug/L	0.040	0.13	1	U		05/17/2017 17:51	RLD	EPA 8260C
1,4-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/17/2017 17:51	RLD	EPA 8260C
1,4-Dioxane	<7.0	ug/L	7.0	23	1	U		05/17/2017 17:51	RLD	EPA 8260C
2,2-Dichloropropane	<0.050	ug/L	0.050	0.15	1	U		05/17/2017 17:51	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.5	1	U		05/17/2017 17:51	RLD	EPA 8260C
2-Chlorotoluene	<0.030	ug/L	0.030	0.11	1	U		05/17/2017 17:51	RLD	EPA 8260C
2-Hexanone	<0.24	ug/L	0.24	0.81	1	U		05/17/2017 17:51	RLD	EPA 8260C
4-Chlorotoluene	<0.040	ug/L	0.040	0.12	1	U		05/17/2017 17:51	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.24	ug/L	0.24	0.82	1	U		05/17/2017 17:51	RLD	EPA 8260C
Acetone	0.95	ug/L	0.30	1.0	1	J B		05/17/2017 17:51	RLD	EPA 8260C
Benzene	<0.018	ug/L	0.018	0.059	1	U		05/17/2017 17:51	RLD	EPA 8260C
Bromobenzene	<0.040	ug/L	0.040	0.15	1	U		05/17/2017 17:51	RLD	EPA 8260C
Bromochloromethane	<0.030	ug/L	0.030	0.099	1	U		05/17/2017 17:51	RLD	EPA 8260C
Bromodichloromethane	<0.016	ug/L	0.016	0.054	1	U		05/17/2017 17:51	RLD	EPA 8260C
Bromoform	<0.040	ug/L	0.040	0.12	1	U		05/17/2017 17:51	RLD	EPA 8260C
Bromomethane	<0.080	ug/L	0.080	0.28	1	U Z		05/17/2017 17:51	RLD	EPA 8260C
Carbon disulfide	<0.070	ug/L	0.070	0.25	1	U		05/17/2017 17:51	RLD	EPA 8260C
Carbon tetrachloride	<0.050	ug/L	0.050	0.18	1	U		05/17/2017 17:51	RLD	EPA 8260C
Chlorobenzene	<0.040	ug/L	0.040	0.15	1	U		05/17/2017 17:51	RLD	EPA 8260C
Chloroethane	<0.070	ug/L	0.070	0.23	1	U		05/17/2017 17:51	RLD	EPA 8260C
Chloroform	<0.030	ug/L	0.030	0.11	1	U		05/17/2017 17:51	RLD	EPA 8260C
Chloromethane	0.040	ug/L	0.040	0.13	1	J		05/17/2017 17:51	RLD	EPA 8260C
cis-1,2-Dichloroethene	<0.070	ug/L	0.070	0.23	1	U		05/17/2017 17:51	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.011	ug/L	0.011	0.038	1	U		05/17/2017 17:51	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 866704 Sample Description:TB-3

DNR License/Well #: 4189/999

Sampled: 05/11/2017

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1	U		05/17/2017 17:51	RLD	EPA 8260C
Dibromomethane	<0.050	ug/L	0.050	0.17	1	U		05/17/2017 17:51	RLD	EPA 8260C
Dichlorodifluoromethane	<0.060	ug/L	0.060	0.19	1	U		05/17/2017 17:51	RLD	EPA 8260C
Diisopropyl ether	<0.040	ug/L	0.040	0.14	1	U		05/17/2017 17:51	RLD	EPA 8260C
Ethylbenzene	<0.040	ug/L	0.040	0.15	1	U		05/17/2017 17:51	RLD	EPA 8260C
Hexachlorobutadiene	<0.050	ug/L	0.050	0.16	1	U		05/17/2017 17:51	RLD	EPA 8260C
Isopropylbenzene	<0.040	ug/L	0.040	0.12	1	U		05/17/2017 17:51	RLD	EPA 8260C
m & p-Xylene	<0.070	ug/L	0.070	0.23	1	U		05/17/2017 17:51	RLD	EPA 8260C
Methyl tert-butyl ether	<0.040	ug/L	0.040	0.12	1	U		05/17/2017 17:51	RLD	EPA 8260C
Methylene chloride	<0.050	ug/L	0.050	0.16	1	U		05/17/2017 17:51	RLD	EPA 8260C
n-Butylbenzene	<0.030	ug/L	0.030	0.11	1	U		05/17/2017 17:51	RLD	EPA 8260C
n-Propylbenzene	<0.040	ug/L	0.040	0.13	1	U		05/17/2017 17:51	RLD	EPA 8260C
Naphthalene	<0.030	ug/L	0.030	0.10	1	U		05/17/2017 17:51	RLD	EPA 8260C
o-Xylene	<0.040	ug/L	0.040	0.14	1	U		05/17/2017 17:51	RLD	EPA 8260C
p-Isopropyltoluene	<0.040	ug/L	0.040	0.13	1	U		05/17/2017 17:51	RLD	EPA 8260C
sec-Butylbenzene	<0.050	ug/L	0.050	0.16	1	U		05/17/2017 17:51	RLD	EPA 8260C
Styrene	<0.030	ug/L	0.030	0.11	1	U		05/17/2017 17:51	RLD	EPA 8260C
tert-Butylbenzene	<0.040	ug/L	0.040	0.14	1	U		05/17/2017 17:51	RLD	EPA 8260C
Tetrachloroethene	<0.050	ug/L	0.050	0.18	1	U		05/17/2017 17:51	RLD	EPA 8260C
Tetrahydrofuran	<0.40	ug/L	0.40	1.5	1	U		05/17/2017 17:51	RLD	EPA 8260C
Toluene	<0.040	ug/L	0.040	0.13	1	U		05/17/2017 17:51	RLD	EPA 8260C
trans-1,2-Dichloroethene	<0.040	ug/L	0.040	0.14	1	U		05/17/2017 17:51	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.019	ug/L	0.019	0.063	1	U		05/17/2017 17:51	RLD	EPA 8260C
Trichloroethene	<0.050	ug/L	0.050	0.17	1	U		05/17/2017 17:51	RLD	EPA 8260C
Trichlorofluoromethane	<0.090	ug/L	0.090	0.14	1	U		05/17/2017 17:51	RLD	EPA 8260C
Vinyl acetate	<0.22	ug/L	0.22	0.73	1	U		05/17/2017 17:51	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 866704 Sample Description:TB-3 DNR License/Well #: 4189/999 Sampled: 05/11/2017

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Vinyl chloride	<0.019	ug/L	0.019	0.064	1	U		05/17/2017 17:51	RLD	EPA 8260C

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Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
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N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
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ISO/IEC 17025-2005 A2LA Cert # 3806.01
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID ACC20160002
Pennsylvania NELAP Lab ID# 68-04201, # 008

QC SUMMARY REPORT

TETRA TECH

SDG #: 0

Folder #: 127313

**Project Name: OCONOMOWOC
 ELECTROPLATING
 Project Number: 117-7413001.01**

Duplicate

Analytical Run #:	137867	Analysis Date:	05/12/2017	Prep Batch #:	Matrix:	GROUND WATER
CTLab #:	867222	Analysis Time:	22:49	Prep Date/Time:	Method:	SW9056A
Parent Sample #:	866669	Analyst:	AGK	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Chloride	208	mg/L	210					1	20
Total Sulfate	87.1	mg/L	87					0	20

TETRA TECH

SDG #: 0

Folder #: 127313

Project Name: OCONOMOWOC

ELECTROPLATING

Project Number: 117-7413001.01

Lab Control Spike Water

Analytical Run #:	137867	Analysis Date:	05/11/2017	Prep Batch #:		Matrix:	LIQUID
CTLab #:	867221	Analysis Time:	16:06	Prep Date/Time:		Method:	SW9056A
Parent Sample #:		Analyst:	AGK	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Chloride	15.99	mg/L			15.00	107	80 --- 120		
Sulfate	26.42	mg/L			25.00	106	80 --- 120		

TETRA TECH

SDG #: 0

Folder #: 127313

Project Name: OCONOMOWOC
ELECTROPLATING
Project Number: 117-7413001.01

Method Blank Water

Analytical Run #:	137867	Analysis Date:	05/11/2017	Prep Batch #:		Matrix:	LIQUID
CTLab #:	867220	Analysis Time:	16:27	Prep Date/Time:		Method:	SW9056A
Parent Sample #:		Analyst:	AGK	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Chloride	0.7	mg/L		U	0		0.7		
Sulfate	1.0	mg/L		U	0		1.0		

TETRA TECH

SDG #: 0

Folder #: 127313

Project Name: OCONOMOWOC

ELECTROPLATING

Project Number: 117-7413001.01

Matrix Spike Water

Analytical Run #:	137867	Analysis Date:	05/12/2017	Prep Batch #:	Matrix:	GROUND WATER
CTLab #:	867213	Analysis Time:	23:16	Prep Date/Time:	Method:	SW9056A
Parent Sample #:	866669	Analyst:	AGK	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Chloride	198	mg/L	210		48.0	0	80 --- 120		20
Total Sulfate	88.6	mg/L	87		48.0	3	80 --- 120		20

TETRA TECH

SDG #: 0

Folder #: 127313

Project Name: OCONOMOWOC

ELECTROPLATING

Project Number: 117-7413001.01

Lab Control Spike Water

Analytical Run #:	137913	Analysis Date:	05/17/2017	Prep Batch #:		Matrix:	LIQUID
CTLab #:	868881	Analysis Time:	18:50	Prep Date/Time:		Method:	SW9060
Parent Sample #:		Analyst:	AGK	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Organic Carbon	48.08	mg/L			50.00	96	88 --- 113		

TETRA TECH

SDG #: 0

Folder #: 127313

Project Name: OCONOMOWOC

ELECTROPLATING

Project Number: 117-7413001.01

Method Blank Water

Analytical Run #:	137913	Analysis Date:	05/17/2017	Prep Batch #:		Matrix:	LIQUID
CTLab #:	868882	Analysis Time:	19:05	Prep Date/Time:		Method:	SW9060
Parent Sample #:		Analyst:	AGK	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Organic Carbon	0.5	mg/L		U	0		0.5		

TETRA TECH

SDG #: 0

Folder #: 127313

Project Name: OCONOMOWOC

ELECTROPLATING

Project Number: 117-7413001.01

Lab Control Spike Water

Analytical Run #:	137915	Analysis Date:	05/18/2017	Prep Batch #:		Matrix:	LIQUID
CTLab #:	868908	Analysis Time:	00:25	Prep Date/Time:		Method:	SW9060
Parent Sample #:		Analyst:	AGK	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Organic Carbon	52.94	mg/L			50.00	106	88 --- 113		

TETRA TECH

SDG #: 0

Folder #: 127313

Project Name: OCONOMOWOC

ELECTROPLATING

Project Number: 117-7413001.01

Method Blank Water

Analytical Run #:	137915	Analysis Date:	05/18/2017	Prep Batch #:		Matrix:	LIQUID
CTLab #:	868909	Analysis Time:	00:40	Prep Date/Time:		Method:	SW9060
Parent Sample #:		Analyst:	AGK	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Organic Carbon	0.5	mg/L		U	0		0.5		

TETRA TECH

SDG #: 0

Folder #: 127313

Project Name: OCONOMOWOC

ELECTROPLATING

Project Number: 117-7413001.01

Lab Control Spike Water

Analytical Run #:	138141	Analysis Date:	05/22/2017	Prep Batch #:	Matrix:	LIQUID
CTLab #:	870365	Analysis Time:	10:52	Prep Date/Time:	Method:	E310.2
Parent Sample #:		Analyst:	SAW	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Alkalinity	366.0	mg/L			375.0	98	90 --- 110		

TETRA TECH

SDG #: 0

Folder #: 127313

Project Name: OCONOMOWOC
ELECTROPLATING
Project Number: 117-7413001.01

Method Blank Water

Analytical Run #:	138141	Analysis Date:	05/22/2017	Prep Batch #:		Matrix:	LIQUID
CTLab #:	870366	Analysis Time:	10:53	Prep Date/Time:		Method:	E310.2
Parent Sample #:		Analyst:	SAW	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Alkalinity	10	mg/L		U	0		10		

TETRA TECH

SDG #: 0

Folder #: 127313

Project Name: OCONOMOWOC
ELECTROPLATING
Project Number: 117-7413001.01

Lab Control Spike Water

Analytical Run #:	138142	Analysis Date:	05/22/2017	Prep Batch #:	Matrix:	LIQUID
CTLab #:	870367	Analysis Time:	11:20	Prep Date/Time:	Method:	E310.2
Parent Sample #:		Analyst:	SAW	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Alkalinity	366.0	mg/L			375.0	98	90 --- 110		

TETRA TECH

SDG #: 0

Folder #: 127313

Project Name: OCONOMOWOC

ELECTROPLATING

Project Number: 117-7413001.01

Method Blank Water

Analytical Run #:	138142	Analysis Date:	05/22/2017	Prep Batch #:		Matrix:	LIQUID
CTLab #:	870368	Analysis Time:	11:35	Prep Date/Time:		Method:	E310.2
Parent Sample #:		Analyst:	SAW	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Alkalinity	10	mg/L		U	0		10		

TETRA TECH

SDG #: 0

Folder #: 127313

Project Name: OCONOMOWOC

ELECTROPLATING

Project Number: 117-7413001.01

Matrix Spike Duplicate Water

Analytical Run #:	137869	Analysis Date:	05/12/2017	Prep Batch #:		Matrix:	GROUND WATER
CTLab #:	867603	Analysis Time:	22:43	Prep Date/Time:		Method:	SW6010
Parent Sample #:	867602	Analyst:	DC	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Iron	2.11	mg/L	0.146		2.00	98	75 --- 113	5	18
Manganese	1070	ug/L	149		1000	92	75 --- 121	3	13

TETRA TECH

SDG #: 0

Folder #: 127313

Project Name: OCONOMOWOC
ELECTROPLATING
Project Number: 117-7413001.01

Matrix Spike Water

Analytical Run #:	137869	Analysis Date:	05/12/2017	Prep Batch #:		Matrix:	GROUND WATER
CTLab #:	867602	Analysis Time:	22:36	Prep Date/Time:		Method:	SW6010
Parent Sample #:	866703	Analyst:	DC	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Iron	2.00	mg/L	0.146		2.00	93	75 --- 113		18
Manganese	1040	ug/L	149		1000	89	75 --- 121		13

Lab Control Spike Water

Analytical Run #:	137896	Analysis Date:	05/16/2017	Prep Batch #:	62373	Matrix:	LIQUID
CTLab #:	867017	Analysis Time:	15:01	Prep Date/Time:	05/15/2017 15:00	Method:	SW6010
Parent Sample #:		Analyst:	NAH	Prep Analyst:	NAH		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Iron	0.4190	mg/L			0.4000	105	80 --- 115		
Manganese	193.0	ug/L			200.0	96	86 --- 112		

TETRA TECH

SDG #: 0

Folder #: 127313

Project Name: OCONOMOWOC

ELECTROPLATING

Project Number: 117-7413001.01

Method Blank Water

Analytical Run #:	137896	Analysis Date:	05/16/2017	Prep Batch #:	62373	Matrix:	LIQUID
CTLab #:	867016	Analysis Time:	15:08	Prep Date/Time:	05/15/2017 15:00	Method:	SW6010
Parent Sample #:		Analyst:	NAH	Prep Analyst:	NAH		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Iron	0.034	mg/L		U	0		0.034		
Manganese	3.4	ug/L		U	0		3.4		

TETRA TECH

SDG #: 0

Folder #: 127313

Project Name: OCONOMOWOC
ELECTROPLATING
Project Number: 117-7413001.01

Matrix Spike Duplicate Water

Analytical Run #:	137896	Analysis Date:	05/16/2017	Prep Batch #:	62373	Matrix:	GROUND WATER
CTLab #:	867019	Analysis Time:	15:28	Prep Date/Time:	05/15/2017 15:00	Method:	SW6010
Parent Sample #:	867018	Analyst:	NAH	Prep Analyst:	NAH		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Iron	2.14	mg/L	1.76		0.400	95	75 --- 118	3	11
Manganese	225	ug/L	35.6		200	95	84 --- 111	0	7

TETRA TECH

SDG #: 0

Folder #: 127313

Project Name: OCONOMOWOC
ELECTROPLATING
Project Number: 117-7413001.01

Matrix Spike Water

Analytical Run #:	137896	Analysis Date:	05/16/2017	Prep Batch #:	62373	Matrix:	GROUND WATER
CTLab #:	867018	Analysis Time:	15:21	Prep Date/Time:	05/15/2017 15:00	Method:	SW6010
Parent Sample #:	866669	Analyst:	NAH	Prep Analyst:	NAH		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Iron	2.08	mg/L	1.76		0.400	80	75 --- 118		
Manganese	226	ug/L	35.6		200	95	84 --- 111		

Lab Control Spike Water

Analytical Run #:	137905	Analysis Date:	05/17/2017	Prep Batch #:	Matrix:	LIQUID
CTLab #:	868558	Analysis Time:	08:41	Prep Date/Time:	Method:	SW8260C
Parent Sample #:		Analyst:	RLD	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	4.30	ug/L			4.00	108	79 --- 122		
1,1,1-Trichloroethane	4.44	ug/L			4.00	111	76 --- 129		
1,1,2,2-Tetrachloroethane	4.23	ug/L			4.00	106	79 --- 119		
1,1,2-Trichloroethane	4.27	ug/L			4.00	107	82 --- 113		
1,1-Dichloroethane	4.25	ug/L			4.00	106	80 --- 119		
1,1-Dichloroethene	4.49	ug/L			4.00	112	75 --- 131		
1,1-Dichloropropene	4.36	ug/L			4.00	109	78 --- 126		
1,2 Dichloroethane-d4	97.0	% Recovery			100	97.0	85 --- 108		
1,2,3-Trichlorobenzene	4.16	ug/L			4.00	104	79 --- 118		
1,2,3-Trichloropropane	4.82	ug/L			4.00	120	67 --- 118		
1,2,4-Trichlorobenzene	4.19	ug/L			4.00	105	82 --- 121		
1,2,4-Trimethylbenzene	4.39	ug/L			4.00	110	80 --- 124		
1,2-Dibromo-3-chloropropane	4.18	ug/L			4.00	104	71 --- 117		
1,2-Dibromoethane	4.27	ug/L			4.00	107	85 --- 115		
1,2-Dichlorobenzene	4.16	ug/L			4.00	104	80 --- 119		
1,2-Dichloroethane	4.12	ug/L			4.00	103	82 --- 113		
1,2-Dichloropropane	4.24	ug/L			4.00	106	84 --- 114		
1,3,5-Trimethylbenzene	4.34	ug/L			4.00	108	83 --- 123		
1,3-Dichlorobenzene	4.27	ug/L			4.00	107	79 --- 122		
1,3-Dichloropropane	4.08	ug/L			4.00	102	84 --- 110		
1,4-Dichlorobenzene	4.21	ug/L			4.00	105	79 --- 121		
1,4-Dioxane	225	ug/L			200	112	70 --- 130		
2,2-Dichloropropane	4.33	ug/L			4.00	108	73 --- 130		
2-Butanone	41.6	ug/L			40.0	104	73 --- 121		
2-Chlorotoluene	4.25	ug/L			4.00	106	82 --- 120		
2-Hexanone	41.8	ug/L			40.0	104	75 --- 121		
4-Chlorotoluene	4.27	ug/L			4.00	107	80 --- 124		
4-Methyl-2-pentanone	41.8	ug/L			40.0	104	73 --- 127		
Acetone	37.0	ug/L			40.0	92	57 --- 123		
Benzene	4.30	ug/L			4.00	108	81 --- 121		
Bromobenzene	4.25	ug/L			4.00	106	80 --- 119		
Bromochloromethane	4.25	ug/L			4.00	106	80 --- 113		
Bromodichloromethane	4.46	ug/L			4.00	112	80 --- 118		
Bromofluorobenzene	100	% Recovery			100	100	91 --- 107		
Bromoform	4.43	ug/L			4.00	111	72 --- 119		
Bromomethane	4.27	ug/L			4.00	107	19 --- 160		
Carbon disulfide	8.80	ug/L			8.00	110	77 --- 128		
Carbon tetrachloride	4.57	ug/L			4.00	114	79 --- 129		
Chlorobenzene	4.27	ug/L			4.00	107	81 --- 117		
Chloroethane	4.14	ug/L			4.00	104	80 --- 130		
Chloroform	4.37	ug/L			4.00	109	78 --- 116		
Chloromethane	3.94	ug/L			4.00	98	73 --- 120		

Lab Control Spike Water

Analytical Run #:	137905	Analysis Date:	05/17/2017	Prep Batch #:	Matrix:	LIQUID
CTLab #:	868558	Analysis Time:	08:41	Prep Date/Time:	Method:	SW8260C
Parent Sample #:		Analyst:	RLD	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
cis-1,2-Dichloroethene	4.21	ug/L			4.00	105	80 --- 120		
cis-1,3-Dichloropropene	4.38	ug/L			4.00	110	81 --- 118		
d8-Toluene	102	% Recovery			100	102	95 --- 103		
Dibromochloromethane	4.19	ug/L			4.00	105	81 --- 115		
Dibromofluoromethane	101	% Recovery			100	101	92 --- 106		
Dibromomethane	4.12	ug/L			4.00	103	79 --- 118		
Dichlorodifluoromethane	4.34	ug/L			4.00	108	80 --- 125		
Diisopropyl ether	4.28	ug/L			4.00	107	81 --- 120		
Ethylbenzene	4.40	ug/L			4.00	110	81 --- 124		
Hexachlorobutadiene	3.92	ug/L			4.00	98	71 --- 131		
Isopropylbenzene	4.41	ug/L			4.00	110	80 --- 127		
m & p-Xylene	8.73	ug/L			8.00	109	81 --- 123		
Methyl tert-butyl ether	4.18	ug/L			4.00	104	80 --- 116		
Methylene chloride	4.26	ug/L			4.00	106	79 --- 125		
n-Butylbenzene	4.11	ug/L			4.00	103	81 --- 124		
n-Propylbenzene	4.41	ug/L			4.00	110	81 --- 127		
Naphthalene	4.12	ug/L			4.00	103	64 --- 126		
o-Xylene	4.36	ug/L			4.00	109	81 --- 122		
p-Isopropyltoluene	4.32	ug/L			4.00	108	84 --- 124		
sec-Butylbenzene	4.33	ug/L			4.00	108	84 --- 125		
Styrene	4.35	ug/L			4.00	109	82 --- 122		
tert-Butylbenzene	4.33	ug/L			4.00	108	82 --- 123		
Tetrachloroethene	4.31	ug/L			4.00	108	80 --- 124		
Tetrahydrofuran	38.5	ug/L			40.0	96	66 --- 128		
Toluene	4.26	ug/L			4.00	106	80 --- 119		
trans-1,2-Dichloroethene	4.26	ug/L			4.00	106	77 --- 125		
trans-1,3-Dichloropropene	4.06	ug/L			4.00	102	79 --- 119		
Trichloroethene	4.32	ug/L			4.00	108	78 --- 122		
Trichlorofluoromethane	4.47	ug/L			4.00	112	78 --- 129		
Vinyl acetate	41.0	ug/L			40.0	102	78 --- 126		
Vinyl chloride	4.27	ug/L			4.00	107	79 --- 127		

Method Blank Water

Analytical Run #:	137905	Analysis Date:	05/17/2017	Prep Batch #:	Matrix:	LIQUID
CTLab #:	868583	Analysis Time:	09:38	Prep Date/Time:	Method:	SW8260C
Parent Sample #:		Analyst:	RLD	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	0.04	ug/L		U	0		0.04		
1,1,1-Trichloroethane	0.05	ug/L		U	0		0.05		
1,1,2,2-Tetrachloroethane	0.017	ug/L		U	0		0.017		
1,1,2-Trichloroethane	0.05	ug/L		U	0		0.05		
1,1-Dichloroethane	0.06	ug/L		U	0		0.06		
1,1-Dichloroethene	0.06	ug/L		U	0		0.06		
1,1-Dichloropropene	0.06	ug/L		U	0		0.06		
1,2 Dichloroethane-d4	100	% Recovery			100	100	68 --- 120		
1,2,3-Trichlorobenzene	0.04	ug/L		U	0		0.04		
1,2,3-Trichloropropane	0.04	ug/L		U	0		0.04		
1,2,4-Trichlorobenzene	0.04	ug/L		U	0		0.04		
1,2,4-Trimethylbenzene	0.04	ug/L		U	0		0.04		
1,2-Dibromo-3-chloropropane	0.09	ug/L		U	0		0.09		
1,2-Dibromoethane	0.07	ug/L		U	0		0.07		
1,2-Dichlorobenzene	0.04	ug/L		U	0		0.04		
1,2-Dichloroethane	0.05	ug/L		U	0		0.05		
1,2-Dichloropropane	0.07	ug/L		U	0		0.07		
1,3,5-Trimethylbenzene	0.05	ug/L		U	0		0.05		
1,3-Dichlorobenzene	0.04	ug/L		U	0		0.04		
1,3-Dichloropropane	0.04	ug/L		U	0		0.04		
1,4-Dichlorobenzene	0.04	ug/L		U	0		0.04		
1,4-Dioxane	7	ug/L		U	0		7		
2,2-Dichloropropane	0.05	ug/L		U	0		0.05		
2-Butanone	0.5	ug/L		U	0		0.5		
2-Chlorotoluene	0.03	ug/L		U	0		0.03		
2-Hexanone	0.24	ug/L		U	0		0.24		
4-Chlorotoluene	0.04	ug/L		U	0		0.04		
4-Methyl-2-pentanone	0.24	ug/L		U	0		0.24		
Acetone	0.929	ug/L			0		0.30		
Benzene	0.018	ug/L		U	0		0.018		
Bromobenzene	0.04	ug/L		U	0		0.04		
Bromochloromethane	0.030	ug/L		U	0		0.030		
Bromodichloromethane	0.016	ug/L		U	0		0.016		
Bromofluorobenzene	98.0	% Recovery			100	98.0	68 --- 120		
Bromoform	0.04	ug/L		U	0		0.04		
Bromomethane	0.08	ug/L		U	0		0.08		
Carbon disulfide	0.07	ug/L		U	0		0.07		
Carbon tetrachloride	0.05	ug/L		U	0		0.05		
Chlorobenzene	0.04	ug/L		U	0		0.04		
Chloroethane	0.07	ug/L		U	0		0.07		
Chloroform	0.03	ug/L		U	0		0.03		
Chloromethane	0.04	ug/L		U	0		0.04		

Method Blank Water

Analytical Run #:	137905	Analysis Date:	05/17/2017	Prep Batch #:	Matrix:	LIQUID
CTLab #:	868583	Analysis Time:	09:38	Prep Date/Time:	Method:	SW8260C
Parent Sample #:		Analyst:	RLD	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
cis-1,2-Dichloroethene	0.07	ug/L		U	0		0.07		
cis-1,3-Dichloropropene	0.011	ug/L		U	0		0.011		
d8-Toluene	101	% Recovery			100	101	71 --- 117		
Dibromochloromethane	0.03	ug/L		U	0		0.03		
Dibromofluoromethane	100	% Recovery			100	100	67 --- 122		
Dibromomethane	0.05	ug/L		U	0		0.05		
Dichlorodifluoromethane	0.06	ug/L		U	0		0.06		
Diisopropyl ether	0.04	ug/L		U	0		0.04		
Ethylbenzene	0.04	ug/L		U	0		0.04		
Hexachlorobutadiene	0.05	ug/L		U	0		0.05		
Isopropylbenzene	0.04	ug/L		U	0		0.04		
m & p-Xylene	0.07	ug/L		U	0		0.07		
Methyl tert-butyl ether	0.04	ug/L		U	0		0.04		
Methylene chloride	0.05	ug/L		U	0		0.05		
n-Butylbenzene	0.03	ug/L		U	0		0.03		
n-Propylbenzene	0.04	ug/L		U	0		0.04		
Naphthalene	0.0413	ug/L			0		0.03		
o-Xylene	0.04	ug/L		U	0		0.04		
p-Isopropyltoluene	0.04	ug/L		U	0		0.04		
sec-Butylbenzene	0.05	ug/L		U	0		0.05		
Styrene	0.03	ug/L		U	0		0.03		
tert-Butylbenzene	0.04	ug/L		U	0		0.04		
Tetrachloroethene	0.05	ug/L		U	0		0.05		
Tetrahydrofuran	0.4	ug/L		U	0		0.4		
Toluene	0.04	ug/L		U	0		0.04		
trans-1,2-Dichloroethene	0.04	ug/L		U	0		0.04		
trans-1,3-Dichloropropene	0.019	ug/L		U	0		0.019		
Trichloroethene	0.05	ug/L		U	0		0.05		
Trichlorofluoromethane	0.09	ug/L		U	0		0.09		
Vinyl acetate	0.22	ug/L		U	0		0.22		
Vinyl chloride	0.019	ug/L		U	0		0.019		

TETRA TECH

SDG #: 0

Folder #: 127313

Project Name: OCONOMOWOC

ELECTROPLATING

Project Number: 117-7413001.01

Lab Control Spike Water

Analytical Run #:	138061	Analysis Date:	05/22/2017	Prep Batch #:	62449	Matrix:	LIQUID
CTLab #:	869177	Analysis Time:	09:19	Prep Date/Time:	05/18/2017 10:45	Method:	RSK175
Parent Sample #:		Analyst:	AGK	Prep Analyst:	AGK		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Acetylene	2.28	ug/L			3.07	74	70 --- 130		20
Ethane	3.60	ug/L			4.78	75	66 --- 129		20
Ethene	5.22	ug/L			6.80	77	68 --- 128		20
Methane	1.78	ug/L			2.30	77	71 --- 126		20

TETRA TECH

SDG #: 0

Folder #: 127313

Project Name: OCONOMOWOC
ELECTROPLATING
Project Number: 117-7413001.01

Method Blank Water

Analytical Run #:	138061	Analysis Date:	05/22/2017	Prep Batch #:	62449	Matrix:	LIQUID
CTLab #:	869176	Analysis Time:	09:29	Prep Date/Time:	05/18/2017 10:45	Method:	RSK175
Parent Sample #:		Analyst:	AGK	Prep Analyst:	AGK		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Acetylene	0.23	ug/L		U	0		0.23		
Ethane	0.4	ug/L		U	0		0.4		
Ethene	0.5	ug/L		U	0		0.5		
Methane	0.4	ug/L		U	0		0.4		

TETRA TECH

SDG #: 0

Folder #: 127313

Project Name: OCONOMOWOC

ELECTROPLATING

Project Number: 117-7413001.01

Lab Control Spike Water

Analytical Run #:	138062	Analysis Date:	05/18/2017	Prep Batch #:	62450	Matrix:	LIQUID
CTLab #:	869504	Analysis Time:	12:26	Prep Date/Time:	05/18/2017 10:46	Method:	RSK175
Parent Sample #:		Analyst:	AGK	Prep Analyst:	AGK		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Acetylene	2.30	ug/L			3.07	75	70 --- 130		20
Ethane	3.99	ug/L			4.78	83	66 --- 129		20
Ethene	5.56	ug/L			6.80	82	68 --- 128		20
Methane	2.07	ug/L			2.30	90	71 --- 126		20

TETRA TECH

SDG #: 0

Folder #: 127313

Project Name: OCONOMOWOC
ELECTROPLATING
Project Number: 117-7413001.01

Method Blank Water

Analytical Run #:	138062	Analysis Date:	05/18/2017	Prep Batch #:	62450	Matrix:	LIQUID
CTLab #:	869503	Analysis Time:	12:38	Prep Date/Time:	05/18/2017 10:46	Method:	RSK175
Parent Sample #:		Analyst:	AGK	Prep Analyst:	AGK		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Acetylene	0.23	ug/L		U	0		0.23		
Ethane	0.4	ug/L		U	0		0.4		
Ethene	0.5	ug/L		U	0		0.5		
Methane	0.4	ug/L		U	0		0.4		

Matrix Spike Duplicate Water

Analytical Run #:	138062	Analysis Date:	05/18/2017	Prep Batch #:	62450	Matrix:	GROUND WATER
CTLab #:	869506	Analysis Time:	13:12	Prep Date/Time:	05/18/2017 10:46	Method:	RSK175
Parent Sample #:	869505	Analyst:	AGK	Prep Analyst:	AGK		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Acetylene	1.51	ug/L	BDL		3.07	49	70 --- 130	41	20
Ethane	3.78	ug/L	BDL		4.78	79	50 --- 142	4	20
Ethene	2.94	ug/L	BDL		6.80	43	56 --- 138	55	43
Methane	1.80	ug/L	BDL		2.30	78	10 --- 163	5	20

Matrix Spike Water

Analytical Run #:	138062	Analysis Date:	05/18/2017	Prep Batch #:	62450	Matrix:	GROUND WATER
CTLab #:	869505	Analysis Time:	13:03	Prep Date/Time:	05/18/2017 10:46	Method:	RSK175
Parent Sample #:	866691	Analyst:	AGK	Prep Analyst:	AGK		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Acetylene	2.28	ug/L	BDL		3.07	74	70 --- 130		
Ethane	3.65	ug/L	BDL		4.78	76	50 --- 142		
Ethene	5.18	ug/L	BDL		6.80	76	56 --- 138		
Methane	1.89	ug/L	BDL		2.30	82	10 --- 163		

Sample Condition Report

Folder #: 127313	Print Date / Time: 05/12/2017 11:24
Client: TETRA TECH	Received Date / Time / By: 05/12/2017 10:30 DRT
Project Name: OCONOMOWOC ELECTROPLATING	Log-In Date / Time / By: 05/12/2017 11:23 BNA
Project Phase: OCONOMOWOC, WI	Project #: 117-7413001.01 PM: BMS
Coolers: 5424	Temperature: 1.3C On Ice: Y
Custody Seals Present :	COC Present?: Y Complete?: Y
Seal Intact? N	Numbers: NOT PRESENT
Ship Method: FEDEX	Tracking Number: 779123945349
Adequate Packaging: Y	Temp Blank Enclosed? Y

Notes: THE SAMPLES WERE RECEIVED IN GOOD CONDITION ON ICE.
 NO CUSTODY SEALS WERE PRESENT UPON RECEIPT - TAPE WAS INTACT.

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
866669 MW-102D	UNPRES PL	1	/	ALK,Anions
	Total # of Containers of Type		(UNPRES PL) = 1	
866669 MW-102D	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	Total # of Containers of Type		(VOA HCL) = 6	
866669 MW-102D	HNO3	1	Y /	ICP
	Total # of Containers of Type		(HNO3) = 1	
866669 MW-102D	H2SO4 PL	1	Y /	TOC
	Total # of Containers of Type		(H2SO4 PL) = 1	
Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
866672 MW-102D	HNO3	1	Y /	ICP
	Total # of Containers of Type		(HNO3) = 1	
Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
866687 MW-102S				

UNPRES PL 1 /
Total # of Containers of Type (UNPRES PL) = 1

ALK,Anions

866687 MW-102S

VOA HCL 1 / GAS,VOC
 VOA HCL 1 / GAS,VOC
 VOA HCL 1 / GAS,VOC
 VOA HCL 1 / GAS,VOC
 VOA HCL 1 / GAS,VOC
 VOA HCL 1 / GAS,VOC
Total # of Containers of Type (VOA HCL) = 6

866687 MW-102S

HNO3 1 Y / ICP
Total # of Containers of Type (HNO3) = 1

866687 MW-102S

H2SO4 PL 1 Y / TOC
Total # of Containers of Type (H2SO4 PL) = 1

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
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866688 MW-102S

HNO3 1 Y / ICP
Total # of Containers of Type (HNO3) = 1

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
-------------------------	----------------	------------	------------------	-------

866689 MW-15B

UNPRES PL 1 / ALK,Anions
Total # of Containers of Type (UNPRES PL) = 1

866689 MW-15B

VOA HCL 1 / GAS,VOC
 VOA HCL 1 / GAS,VOC
 VOA HCL 1 / GAS,VOC
 VOA HCL 1 / GAS,VOC
 VOA HCL 1 / GAS,VOC
 VOA HCL 1 / GAS,VOC
Total # of Containers of Type (VOA HCL) = 6

866689 MW-15B

HNO3 1 Y / ICP
Total # of Containers of Type (HNO3) = 1

866689 MW-15B

H2SO4 PL 1 Y / TOC
Total # of Containers of Type (H2SO4 PL) = 1

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
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866690 MW-15B

HNO3 1 Y / ICP
Total # of Containers of Type (HNO3) = 1

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
866691 MW-15S	UNPRES PL	1	/	ALK,Anions
	Total # of Containers of Type		(UNPRES PL) = 1	
866691 MW-15S	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	Total # of Containers of Type		(VOA HCL) = 6	
866691 MW-15S	HNO3	1	Y /	ICP
	Total # of Containers of Type		(HNO3) = 1	
866691 MW-15S	H2SO4 PL	1	Y /	TOC
	Total # of Containers of Type		(H2SO4 PL) = 1	
Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
866692 MW-15S	HNO3	1	Y /	ICP
	Total # of Containers of Type		(HNO3) = 1	
Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
866693 MW-15D	UNPRES PL	1	/	ALK,Anions
	Total # of Containers of Type		(UNPRES PL) = 1	
866693 MW-15D	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	Total # of Containers of Type		(VOA HCL) = 6	
866693 MW-15D	HNO3	1	Y /	ICP
	Total # of Containers of Type		(HNO3) = 1	
866693 MW-15D	H2SO4 PL	1	Y /	TOC
	Total # of Containers of Type		(H2SO4 PL) = 1	

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
866694 MW-15D	HNO3	1	Y /	ICP
	Total # of Containers of Type (HNO3) = 1			

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
866695 MW-101S	UNPRES PL	1	/	ALK,Anions
	Total # of Containers of Type (UNPRES PL) = 1			

866695 MW-101S	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	Total # of Containers of Type (VOA HCL) = 6			

866695 MW-101S	HNO3	1	Y /	ICP
	Total # of Containers of Type (HNO3) = 1			

866695 MW-101S	H2SO4 PL	1	Y /	TOC
	Total # of Containers of Type (H2SO4 PL) = 1			

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
866696 MW-101S	HNO3	1	Y /	ICP
	Total # of Containers of Type (HNO3) = 1			

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
866697 MW-101B	UNPRES PL	1	/	ALK,Anions
	Total # of Containers of Type (UNPRES PL) = 1			

866697 MW-101B	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	Total # of Containers of Type (VOA HCL) = 6			

866697 MW-101B	HNO3	1	Y /	ICP
	Total # of Containers of Type (HNO3) = 1			

866697 MW-101B
 H2SO4 PL 1 Y / TOC
Total # of Containers of Type (H2SO4 PL) = 1

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
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866698 MW-101B
 HNO3 1 Y / ICP
Total # of Containers of Type (HNO3) = 1

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
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866699 MW-14DR
 UNPRES PL 1 / ALK,Anions
Total # of Containers of Type (UNPRES PL) = 1

866699 MW-14DR
 VOA HCL 1 / GAS,VOC
 VOA HCL 1 / GAS,VOC
 VOA HCL 1 / GAS,VOC
 VOA HCL 1 / GAS,VOC
 VOA HCL 1 / GAS,VOC
 VOA HCL 1 / GAS,VOC
Total # of Containers of Type (VOA HCL) = 6

866699 MW-14DR
 HNO3 1 Y / ICP
Total # of Containers of Type (HNO3) = 1

866699 MW-14DR
 H2SO4 PL 1 Y / TOC
Total # of Containers of Type (H2SO4 PL) = 1

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
-------------------------	----------------	------------	------------------	-------

866700 MW-14DR
 HNO3 1 Y / ICP
Total # of Containers of Type (HNO3) = 1

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
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866702 MW-4S
 UNPRES PL 1 / ALK,Anions
Total # of Containers of Type (UNPRES PL) = 1

866702 MW-4S
 VOA HCL 1 / GAS,VOC
 VOA HCL 1 / GAS,VOC
 VOA HCL 1 / GAS,VOC
 VOA HCL 1 / GAS,VOC
 VOA HCL 1 / GAS,VOC
 VOA HCL 1 / GAS,VOC

Total # of Containers of Type (VOA HCL) = 6

866702 MW-4S
 HNO3 1 Y / ICP
Total # of Containers of Type (HNO3) = 1

866702 MW-4S
 H2SO4 PL 1 Y / TOC
Total # of Containers of Type (H2SO4 PL) = 1

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
866703 MW-4S	HNO3	1	Y /	ICP
Total # of Containers of Type (HNO3) = 1				

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
866704 TB-3	Trip Blank	1	/	VOC
	Trip Blank	1	/	VOC
Total # of Containers of Type (Trip Blank) = 2				

Condition Code	Condition Description
1	Sample Received OK

Company: Tetra Tech
 Project Contact: Mark Mantney
 Telephone: 262 792 1282
 Project Name: Oconomowoc Electroplating
 Project #: 117-7413001.01
 Location: Oconomowoc
 Sampled By: Ashley Kawalewski

CT LABORATORIES
 Folder #: 127313
 Company: TETRA TECH
 Project: OCONOMOWOC ELEC
 Logged By: BNA PM BAI
 1230 Lange Court, Baraboo, WI 53913
 608-356-2760 Fax 608-356-2766
 www.ctlaboratories.com
 ram:
 RCRA SDWA NPDES
 Waste Other _____

Report To:
 EMAIL: mark.mantney@tetratech.com
 Company: Tetra Tech
 Address: 175 N Corporate Dr #100
 Brookfield WI 53045
 Invoice To:
 EMAIL:
 Company:
 Address:

*Party listed is responsible for payment of invoice as per CT Laboratories' terms and conditions

Client Special Instructions
 * field filtered
 "FF" also written on bottle

Filtered? Y/N	ANALYSES REQUESTED										Total # Containers	Designated MS/MSD	
	TDC	ICP Dissolved *	ICP total	a16 Chloride	Substrate	BSK-175: meth. - 2000	retne. dislactyl level	VOC's 8260 LL					
	1	1	1	1	1	1	1	3	3				
	1	1	1	1	1	1	1	3	3				
	1	1	1	1	1	1	1	3	3				
	1	1	1	1	1	1	1	3	3				
	1	1	1	1	1	1	1	3	3				
	1	1	1	1	1	1	1	3	3				
	1	1	1	1	1	1	1	3	3				
	1	1	1	1	1	1	1	3	3				
	1	1	1	1	1	1	1	3	3				
									2				

Turnaround Time
 Normal RUSH*
 Date Needed: _____
 Rush analysis requires prior
 CT Laboratories' approval
 Surcharges:
 24 hr 200%
 2-3 days 100%
 4-9 days 50%

Matrix:
 GW - groundwater SW - surface water WW - wastewater DW - drinking water
 S - soil/sediment SL - sludge A - air M - misc/waste

Collection		Matrix	Grab/Comp	Sample #	Sample ID Description	Fill in Spaces with Bottles per Test										CT Lab ID # Lab use only	
Date	Time																
5-11	1030	GW	grab	1	MW-102D	1	1	1	1	3	3						866669/866672
	1105			2	MW-102S	1	1	1	1	3	3						866687/866688
	1140			3	MW-15B	1	1	1	1	3	3						866689/866690
	1215			4	MW-15S	1	1	1	1	3	3						866691/866692
	1250			5	MW-15D	1	1	1	1	3	3						866693/866694
	1345			6	MW-101S	1	1	1	1	3	3						866695/866696
	1410			7	MW-101B	1	1	1	1	3	3						866697/866698
	1530			8	MW-14DR	1	1	1	1	3	3						866699/866700
	1530			9	MW-4S	1	1	1	1	3	3						866702/866703
		DI		10	TB-3						2						866704

Relinquished By: Ashley Kawalewski
 Received by:

Date/Time: 5-11-17 1645
 Date/Time:

Received By: [Signature]
 Received for Laboratory by: [Signature]

Date/Time: 5/12/17 1030
 Date/Time: 5-12-17 1123

Lab Use Only
 Ice Present Yes No
 Temp 1.3 IR Gun 20
 Cooler # 5424

Cooler Receipt Form

Ice Present YES NO
Temperature 1.3
IR Gun # 20
Initials R
Date 5/12/17 Time 1030
Cooler #: 5424

FRI - 12 MAY 10:30A

PRIORITY OVERNIGHT

DSR

53913

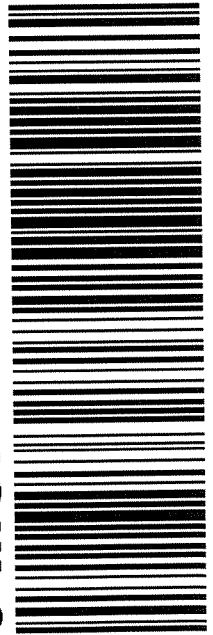
MSN

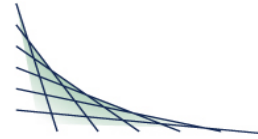
WI-US

TRK# 7791 2394 5349

0201

55 MSNA





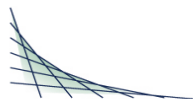
ANALYTICAL REPORT

This report at a minimum contains the following information:

- Analytical Report of Test Results
- Description of QC Qualifiers
- Chain of Custody (copy)
- Quality Control Summary
- Case Narrative (if applicable)
- Correspondence with Client (if applicable)

This report has been specifically prepared to satisfy project or program requirements. These results are in compliance with NELAC requirements for parameters where accreditation is required or available, unless otherwise noted in the case narrative.





REVISED
ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase: OCONOMOWOC, WI
 Project #: 117-7413001.01
 Folder #: 127351
 Purchase Order #:
 Contract #: 2747

Page 1 of 5
 Arrival Temperature: 3.2
 Report Date: 05/26/2017
 Date Received: 05/13/2017
 Reprint Date: 05/31/2017

CT LAB#: 867204 Sample Description: MW-16S

DNR License/Well #: 4189/026

Sampled: 05/12/2017 1115

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Field Results										
Dissolved Oxygen (Field)	0.05	mg/L	N/A	N/A	1			05/24/2017 00:00	BMS	
OX/REDOX (Field)	-123	MV	N/A	N/A	1			05/24/2017 00:00	BMS	
Color (Field)	CLEAR		N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Conductivity (Field)	2690	umhos/cm	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Groundwater Elevation (Field)	845.09	Feet MSL	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
pH (Field)	7.07	S.U.	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Temperature (Field)	6.32	Deg. C	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Turbidity (Field)	NO		N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Inorganic Results										
Alkalinity Total	710	mg/L	10	34	1			05/22/2017 11:31	SAW	EPA 310.2
Total Chloride	210	mg/L	14	48	20	M		05/16/2017 21:14	AGK	EPA 9056A
Total Sulfate	670	mg/L	20	64	20	M		05/16/2017 21:14	AGK	EPA 9056A
Total Organic Carbon	6.1	mg/L	0.50	1.7	1			05/18/2017 04:47	AGK	EPA 9060A
Metals Results										
Total Iron	6.39	mg/L	0.034	0.11	1	M	05/17/2017 08:00	05/17/2017 21:59	NAH	EPA 6010C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

The groundwater elevation listed above is from the May 2016 sampling round and therefore incorrect for this round.

CT LAB#: 867204 Sample Description: MW-16S

DNR License/Well #: 4189/026

Sampled: 05/12/2017 1115

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Total Manganese	57.7	ug/L	3.4	11	1		05/17/2017 08:00	05/17/2017 21:59	NAH	EPA 6010C
Organic Results										
Acetylene	<0.23	ug/L	0.23	0.77	1	U	05/18/2017 10:46	05/18/2017 14:20	AGK	Mod RSK 175
Ethane	<0.40	ug/L	0.40	1.2	1	U	05/18/2017 10:46	05/18/2017 14:20	AGK	Mod RSK 175
Ethene	<0.50	ug/L	0.50	1.8	1	U	05/18/2017 10:46	05/18/2017 14:20	AGK	Mod RSK 175
Methane	1.9	ug/L	0.40	1.2	1		05/18/2017 10:46	05/18/2017 14:20	AGK	Mod RSK 175
1,1,1,2-Tetrachloroethane	<4.0	ug/L	4.0	13	100	U		05/17/2017 21:09	RLD	EPA 8260C
1,1,1-Trichloroethane	<5.0	ug/L	5.0	17	100	U		05/17/2017 21:09	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<1.7	ug/L	1.7	5.7	100	U		05/17/2017 21:09	RLD	EPA 8260C
1,1,2-Trichloroethane	<5.0	ug/L	5.0	16	100	U		05/17/2017 21:09	RLD	EPA 8260C
1,1-Dichloroethane	<6.0	ug/L	6.0	19	100	U		05/17/2017 21:09	RLD	EPA 8260C
1,1-Dichloroethene	<6.0	ug/L	6.0	20	100	U		05/17/2017 21:09	RLD	EPA 8260C
1,1-Dichloropropene	<6.0	ug/L	6.0	19	100	U		05/17/2017 21:09	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<4.0	ug/L	4.0	13	100	U		05/17/2017 21:09	RLD	EPA 8260C
1,2,3-Trichloropropane	<4.0	ug/L	4.0	14	100	U		05/17/2017 21:09	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<4.0	ug/L	4.0	12	100	U		05/17/2017 21:09	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<4.0	ug/L	4.0	12	100	U		05/17/2017 21:09	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<9.0	ug/L	9.0	29	100	U		05/17/2017 21:09	RLD	EPA 8260C
1,2-Dibromoethane	<7.0	ug/L	7.0	23	100	U		05/17/2017 21:09	RLD	EPA 8260C
1,2-Dichlorobenzene	<4.0	ug/L	4.0	13	100	U		05/17/2017 21:09	RLD	EPA 8260C
1,2-Dichloroethane	<5.0	ug/L	5.0	18	100	U		05/17/2017 21:09	RLD	EPA 8260C
1,2-Dichloropropane	<7.0	ug/L	7.0	23	100	U		05/17/2017 21:09	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<5.0	ug/L	5.0	16	100	U		05/17/2017 21:09	RLD	EPA 8260C
1,3-Dichlorobenzene	<4.0	ug/L	4.0	13	100	U		05/17/2017 21:09	RLD	EPA 8260C
1,3-Dichloropropane	<4.0	ug/L	4.0	13	100	U		05/17/2017 21:09	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 867204 Sample Description: MW-16S

DNR License/Well #: 4189/026

Sampled: 05/12/2017 1115

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,4-Dichlorobenzene	<4.0	ug/L	4.0	13	100	U		05/17/2017 21:09	RLD	EPA 8260C
1,4-Dioxane	<700	ug/L	700	2300	100	U		05/17/2017 21:09	RLD	EPA 8260C
2,2-Dichloropropane	<5.0	ug/L	5.0	15	100	U		05/17/2017 21:09	RLD	EPA 8260C
2-Butanone	110	ug/L	50	150	100	J		05/17/2017 21:09	RLD	EPA 8260C
2-Chlorotoluene	<3.0	ug/L	3.0	11	100	U		05/17/2017 21:09	RLD	EPA 8260C
2-Hexanone	<24	ug/L	24	81	100	U		05/17/2017 21:09	RLD	EPA 8260C
4-Chlorotoluene	<4.0	ug/L	4.0	12	100	U		05/17/2017 21:09	RLD	EPA 8260C
4-Methyl-2-pentanone	<24	ug/L	24	82	100	U		05/17/2017 21:09	RLD	EPA 8260C
Acetone	100	ug/L	30	100	100	B		05/17/2017 21:09	RLD	EPA 8260C
Benzene	<1.8	ug/L	1.8	5.9	100	U		05/17/2017 21:09	RLD	EPA 8260C
Bromobenzene	<4.0	ug/L	4.0	15	100	U		05/17/2017 21:09	RLD	EPA 8260C
Bromochloromethane	<3.0	ug/L	3.0	9.9	100	U		05/17/2017 21:09	RLD	EPA 8260C
Bromodichloromethane	<1.6	ug/L	1.6	5.4	100	U		05/17/2017 21:09	RLD	EPA 8260C
Bromoform	<4.0	ug/L	4.0	12	100	U		05/17/2017 21:09	RLD	EPA 8260C
Bromomethane	<8.0	ug/L	8.0	28	100	U Z		05/17/2017 21:09	RLD	EPA 8260C
Carbon disulfide	<7.0	ug/L	7.0	25	100	U		05/17/2017 21:09	RLD	EPA 8260C
Carbon tetrachloride	<5.0	ug/L	5.0	18	100	U		05/17/2017 21:09	RLD	EPA 8260C
Chlorobenzene	<4.0	ug/L	4.0	15	100	U		05/17/2017 21:09	RLD	EPA 8260C
Chloroethane	<7.0	ug/L	7.0	23	100	U		05/17/2017 21:09	RLD	EPA 8260C
Chloroform	<3.0	ug/L	3.0	11	100	U		05/17/2017 21:09	RLD	EPA 8260C
Chloromethane	<4.0	ug/L	4.0	13	100	U		05/17/2017 21:09	RLD	EPA 8260C
cis-1,2-Dichloroethene	870	ug/L	7.0	23	100			05/17/2017 21:09	RLD	EPA 8260C
cis-1,3-Dichloropropene	<1.1	ug/L	1.1	3.8	100	U		05/17/2017 21:09	RLD	EPA 8260C
Dibromochloromethane	<3.0	ug/L	3.0	10	100	U		05/17/2017 21:09	RLD	EPA 8260C
Dibromomethane	<5.0	ug/L	5.0	17	100	U		05/17/2017 21:09	RLD	EPA 8260C
Dichlorodifluoromethane	<6.0	ug/L	6.0	19	100	U		05/17/2017 21:09	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 867204 Sample Description:MW-16S

DNR License/Well #: 4189/026

Sampled: 05/12/2017 1115

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Diisopropyl ether	<4.0	ug/L	4.0	14	100	U		05/17/2017 21:09	RLD	EPA 8260C
Ethylbenzene	<4.0	ug/L	4.0	15	100	U		05/17/2017 21:09	RLD	EPA 8260C
Hexachlorobutadiene	<5.0	ug/L	5.0	16	100	U		05/17/2017 21:09	RLD	EPA 8260C
Isopropylbenzene	<4.0	ug/L	4.0	12	100	U		05/17/2017 21:09	RLD	EPA 8260C
m & p-Xylene	<7.0	ug/L	7.0	23	100	U		05/17/2017 21:09	RLD	EPA 8260C
Methyl tert-butyl ether	<4.0	ug/L	4.0	12	100	U		05/17/2017 21:09	RLD	EPA 8260C
Methylene chloride	61	ug/L	5.0	16	100	M,B		05/17/2017 21:09	RLD	EPA 8260C
n-Butylbenzene	<3.0	ug/L	3.0	11	100	U		05/17/2017 21:09	RLD	EPA 8260C
n-Propylbenzene	<4.0	ug/L	4.0	13	100	U		05/17/2017 21:09	RLD	EPA 8260C
Naphthalene	<3.0	ug/L	3.0	10	100	U		05/17/2017 21:09	RLD	EPA 8260C
o-Xylene	<4.0	ug/L	4.0	14	100	U		05/17/2017 21:09	RLD	EPA 8260C
p-Isopropyltoluene	<4.0	ug/L	4.0	13	100	U		05/17/2017 21:09	RLD	EPA 8260C
sec-Butylbenzene	<5.0	ug/L	5.0	16	100	U		05/17/2017 21:09	RLD	EPA 8260C
Styrene	<3.0	ug/L	3.0	11	100	U		05/17/2017 21:09	RLD	EPA 8260C
tert-Butylbenzene	<4.0	ug/L	4.0	14	100	U		05/17/2017 21:09	RLD	EPA 8260C
Tetrachloroethene	<5.0	ug/L	5.0	18	100	U		05/17/2017 21:09	RLD	EPA 8260C
Tetrahydrofuran	69	ug/L	40	150	100	J B		05/17/2017 21:09	RLD	EPA 8260C
Toluene	<4.0	ug/L	4.0	13	100	U		05/17/2017 21:09	RLD	EPA 8260C
trans-1,2-Dichloroethene	41	ug/L	4.0	14	100			05/17/2017 21:09	RLD	EPA 8260C
trans-1,3-Dichloropropene	<1.9	ug/L	1.9	6.3	100	U		05/17/2017 21:09	RLD	EPA 8260C
Trichloroethene	<5.0	ug/L	5.0	17	100	U		05/17/2017 21:09	RLD	EPA 8260C
Trichlorofluoromethane	<9.0	ug/L	9.0	14	100	U		05/17/2017 21:09	RLD	EPA 8260C
Vinyl acetate	180	ug/L	22	73	100			05/17/2017 21:09	RLD	EPA 8260C
Vinyl chloride	28	ug/L	1.9	6.4	100			05/17/2017 21:09	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

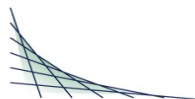
All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications

Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
Louisiana NELAP (primary) ID# ACC20160002
Illinois NELAP Lab ID# 200073
Kansas NELAP Lab ID# E-10368
Virginia NELAP Lab ID# 460203
Maryland Lab ID# WI00061
ISO/IEC 17025-2005 A2LA Cert # 3806.01
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID ACC20160002
Pennsylvania NELAP Lab ID# 68-04201, # 008



REVISED
ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase: OCONOMOWOC, WI
 Project #: 117-7413001.01
 Folder #: 127351
 Purchase Order #:
 Contract #: 2747

Page 1 of 2
 Arrival Temperature: 3.2
 Report Date: 05/26/2017
 Date Received: 05/13/2017
 Reprint Date: 05/31/2017

CT LAB#: 867206	Sample Description: MW-16S	DNR License/Well #: 4189/026	Sampled: 05/12/2017 1115
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Metals Results										
Dissolved Iron	5.15	mg/L	0.059	0.20	1		05/16/2017 17:43	17:43	NAH	EPA 6010C
Dissolved Manganese	46.5	ug/L	2.2	7.3	1		05/16/2017 17:43	17:43	NAH	EPA 6010C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

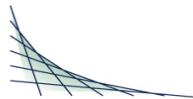
All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications

Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
Louisiana NELAP (primary) ID# ACC20160002
Illinois NELAP Lab ID# 200073
Kansas NELAP Lab ID# E-10368
Virginia NELAP Lab ID# 460203
Maryland Lab ID# WI00061
ISO/IEC 17025-2005 A2LA Cert # 3806.01
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID ACC20160002
Pennsylvania NELAP Lab ID# 68-04201, # 008



REVISED
ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase: OCONOMOWOC, WI
 Project #: 117-7413001.01
 Folder #: 127351
 Purchase Order #:
 Contract #: 2747

Page 1 of 5
 Arrival Temperature: 3.2
 Report Date: 05/26/2017
 Date Received: 05/13/2017
 Reprint Date: 05/31/2017

CT LAB#: 867207 Sample Description: MW-3D

DNR License/Well #: 4189/006

Sampled: 05/12/2017 1205

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Field Results										
Dissolved Oxygen (Field)	2.32	mg/L	N/A	N/A	1			05/24/2017 00:00	BMS	
OX/REDOX (Field)	114	MV	N/A	N/A	1			05/24/2017 00:00	BMS	
Color (Field)	CLEAR		N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Conductivity (Field)	1010	umhos/cm	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Groundwater Elevation (Field)	846.30	Feet MSL	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
pH (Field)	7.34	S.U.	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Temperature (Field)	12.44	Deg. C	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Turbidity (Field)	NO		N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Inorganic Results										
Alkalinity Total	380	mg/L	10	34	1			05/22/2017 11:32	SAW	EPA 310.2
Total Chloride	170	mg/L	3.5	12	5			05/16/2017 23:37	AGK	EPA 9056A
Total Sulfate	45	mg/L	1.0	3.2	1			05/16/2017 23:16	AGK	EPA 9056A
Total Organic Carbon	3.0	mg/L	0.50	1.7	1			05/18/2017 05:00	AGK	EPA 9060A
Metals Results										
Total Iron	0.459	mg/L	0.034	0.11	1		05/17/2017 08:00	05/18/2017 22:53	NAH	EPA 6010C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

The groundwater elevation listed above is from the May 2016 sampling round and therefore incorrect for this round.

CT LAB#: 867207 Sample Description: MW-3D

DNR License/Well #: 4189/006

Sampled: 05/12/2017 1205

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Total Manganese	8.0	ug/L	3.4	11	1	J	05/17/2017 08:00	05/17/2017 22:45	NAH	EPA 6010C
Organic Results										
Acetylene	<0.23	ug/L	0.23	0.77	1	U	05/18/2017 10:46	05/18/2017 14:41	AGK	Mod RSK 175
Ethane	<0.40	ug/L	0.40	1.2	1	U	05/18/2017 10:46	05/18/2017 14:41	AGK	Mod RSK 175
Ethene	<0.50	ug/L	0.50	1.8	1	U	05/18/2017 10:46	05/18/2017 14:41	AGK	Mod RSK 175
Methane	2.5	ug/L	0.40	1.2	1		05/18/2017 10:46	05/18/2017 14:41	AGK	Mod RSK 175
1,1,1,2-Tetrachloroethane	<0.040	ug/L	0.040	0.13	1	U		05/17/2017 11:32	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.050	ug/L	0.050	0.17	1	U		05/17/2017 11:32	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.017	ug/L	0.017	0.057	1	U		05/17/2017 11:32	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.050	ug/L	0.050	0.16	1	U		05/17/2017 11:32	RLD	EPA 8260C
1,1-Dichloroethane	<0.060	ug/L	0.060	0.19	1	U		05/17/2017 11:32	RLD	EPA 8260C
1,1-Dichloroethene	<0.060	ug/L	0.060	0.20	1	U		05/17/2017 11:32	RLD	EPA 8260C
1,1-Dichloropropene	<0.060	ug/L	0.060	0.19	1	U		05/17/2017 11:32	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/17/2017 11:32	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.040	ug/L	0.040	0.14	1	U		05/17/2017 11:32	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.040	ug/L	0.040	0.12	1	U		05/17/2017 11:32	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.040	ug/L	0.040	0.12	1	U		05/17/2017 11:32	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.090	ug/L	0.090	0.29	1	U		05/17/2017 11:32	RLD	EPA 8260C
1,2-Dibromoethane	<0.070	ug/L	0.070	0.23	1	U		05/17/2017 11:32	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/17/2017 11:32	RLD	EPA 8260C
1,2-Dichloroethane	<0.050	ug/L	0.050	0.18	1	U		05/17/2017 11:32	RLD	EPA 8260C
1,2-Dichloropropane	<0.070	ug/L	0.070	0.23	1	U		05/17/2017 11:32	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<0.050	ug/L	0.050	0.16	1	U		05/17/2017 11:32	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/17/2017 11:32	RLD	EPA 8260C
1,3-Dichloropropane	<0.040	ug/L	0.040	0.13	1	U		05/17/2017 11:32	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 867207 Sample Description:MW-3D

DNR License/Well #: 4189/006

Sampled: 05/12/2017 1205

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,4-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/17/2017 11:32	RLD	EPA 8260C
1,4-Dioxane	<7.0	ug/L	7.0	23	1	U		05/17/2017 11:32	RLD	EPA 8260C
2,2-Dichloropropane	<0.050	ug/L	0.050	0.15	1	U		05/17/2017 11:32	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.5	1	U		05/17/2017 11:32	RLD	EPA 8260C
2-Chlorotoluene	<0.030	ug/L	0.030	0.11	1	U		05/17/2017 11:32	RLD	EPA 8260C
2-Hexanone	<0.24	ug/L	0.24	0.81	1	U		05/17/2017 11:32	RLD	EPA 8260C
4-Chlorotoluene	<0.040	ug/L	0.040	0.12	1	U		05/17/2017 11:32	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.24	ug/L	0.24	0.82	1	U		05/17/2017 11:32	RLD	EPA 8260C
Acetone	0.57	ug/L	0.30	1.0	1	J B		05/17/2017 11:32	RLD	EPA 8260C
Benzene	<0.018	ug/L	0.018	0.059	1	U		05/17/2017 11:32	RLD	EPA 8260C
Bromobenzene	<0.040	ug/L	0.040	0.15	1	U		05/17/2017 11:32	RLD	EPA 8260C
Bromochloromethane	<0.030	ug/L	0.030	0.099	1	U		05/17/2017 11:32	RLD	EPA 8260C
Bromodichloromethane	<0.016	ug/L	0.016	0.054	1	U		05/17/2017 11:32	RLD	EPA 8260C
Bromoform	<0.040	ug/L	0.040	0.12	1	U		05/17/2017 11:32	RLD	EPA 8260C
Bromomethane	<0.080	ug/L	0.080	0.28	1	U		05/17/2017 11:32	RLD	EPA 8260C
Carbon disulfide	<0.070	ug/L	0.070	0.25	1	U		05/17/2017 11:32	RLD	EPA 8260C
Carbon tetrachloride	<0.050	ug/L	0.050	0.18	1	U		05/17/2017 11:32	RLD	EPA 8260C
Chlorobenzene	<0.040	ug/L	0.040	0.15	1	U		05/17/2017 11:32	RLD	EPA 8260C
Chloroethane	<0.070	ug/L	0.070	0.23	1	U		05/17/2017 11:32	RLD	EPA 8260C
Chloroform	<0.030	ug/L	0.030	0.11	1	U		05/17/2017 11:32	RLD	EPA 8260C
Chloromethane	0.099	ug/L	0.040	0.13	1	J		05/17/2017 11:32	RLD	EPA 8260C
cis-1,2-Dichloroethene	0.17	ug/L	0.070	0.23	1	J		05/17/2017 11:32	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.011	ug/L	0.011	0.038	1	U		05/17/2017 11:32	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1	U		05/17/2017 11:32	RLD	EPA 8260C
Dibromomethane	<0.050	ug/L	0.050	0.17	1	U		05/17/2017 11:32	RLD	EPA 8260C
Dichlorodifluoromethane	<0.060	ug/L	0.060	0.19	1	U		05/17/2017 11:32	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 867207 Sample Description:MW-3D

DNR License/Well #: 4189/006

Sampled: 05/12/2017 1205

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Diisopropyl ether	<0.040	ug/L	0.040	0.14	1	U	05/17/2017 11:32	05/17/2017 11:32	RLD	EPA 8260C
Ethylbenzene	<0.040	ug/L	0.040	0.15	1	U	05/17/2017 11:32	05/17/2017 11:32	RLD	EPA 8260C
Hexachlorobutadiene	<0.050	ug/L	0.050	0.16	1	U	05/17/2017 11:32	05/17/2017 11:32	RLD	EPA 8260C
Isopropylbenzene	<0.040	ug/L	0.040	0.12	1	U	05/17/2017 11:32	05/17/2017 11:32	RLD	EPA 8260C
m & p-Xylene	<0.070	ug/L	0.070	0.23	1	U	05/17/2017 11:32	05/17/2017 11:32	RLD	EPA 8260C
Methyl tert-butyl ether	0.13	ug/L	0.040	0.12	1		05/17/2017 11:32	05/17/2017 11:32	RLD	EPA 8260C
Methylene chloride	<0.050	ug/L	0.050	0.16	1	U	05/17/2017 11:32	05/17/2017 11:32	RLD	EPA 8260C
n-Butylbenzene	<0.030	ug/L	0.030	0.11	1	U	05/17/2017 11:32	05/17/2017 11:32	RLD	EPA 8260C
n-Propylbenzene	<0.040	ug/L	0.040	0.13	1	U	05/17/2017 11:32	05/17/2017 11:32	RLD	EPA 8260C
Naphthalene	<0.030	ug/L	0.030	0.10	1	U	05/17/2017 11:32	05/17/2017 11:32	RLD	EPA 8260C
o-Xylene	<0.040	ug/L	0.040	0.14	1	U	05/17/2017 11:32	05/17/2017 11:32	RLD	EPA 8260C
p-Isopropyltoluene	<0.040	ug/L	0.040	0.13	1	U	05/17/2017 11:32	05/17/2017 11:32	RLD	EPA 8260C
sec-Butylbenzene	<0.050	ug/L	0.050	0.16	1	U	05/17/2017 11:32	05/17/2017 11:32	RLD	EPA 8260C
Styrene	<0.030	ug/L	0.030	0.11	1	U	05/17/2017 11:32	05/17/2017 11:32	RLD	EPA 8260C
tert-Butylbenzene	<0.040	ug/L	0.040	0.14	1	U	05/17/2017 11:32	05/17/2017 11:32	RLD	EPA 8260C
Tetrachloroethene	<0.050	ug/L	0.050	0.18	1	U	05/17/2017 11:32	05/17/2017 11:32	RLD	EPA 8260C
Tetrahydrofuran	<0.40	ug/L	0.40	1.5	1	U	05/17/2017 11:32	05/17/2017 11:32	RLD	EPA 8260C
Toluene	<0.040	ug/L	0.040	0.13	1	U	05/17/2017 11:32	05/17/2017 11:32	RLD	EPA 8260C
trans-1,2-Dichloroethene	<0.040	ug/L	0.040	0.14	1	U	05/17/2017 11:32	05/17/2017 11:32	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.019	ug/L	0.019	0.063	1	U	05/17/2017 11:32	05/17/2017 11:32	RLD	EPA 8260C
Trichloroethene	<0.050	ug/L	0.050	0.17	1	U	05/17/2017 11:32	05/17/2017 11:32	RLD	EPA 8260C
Trichlorofluoromethane	<0.090	ug/L	0.090	0.14	1	U	05/17/2017 11:32	05/17/2017 11:32	RLD	EPA 8260C
Vinyl acetate	<0.22	ug/L	0.22	0.73	1	U	05/17/2017 11:32	05/17/2017 11:32	RLD	EPA 8260C
Vinyl chloride	<0.019	ug/L	0.019	0.064	1	U	05/17/2017 11:32	05/17/2017 11:32	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

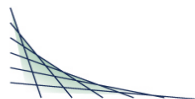
All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications

Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
Louisiana NELAP (primary) ID# ACC20160002
Illinois NELAP Lab ID# 200073
Kansas NELAP Lab ID# E-10368
Virginia NELAP Lab ID# 460203
Maryland Lab ID# WI00061
ISO/IEC 17025-2005 A2LA Cert # 3806.01
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID ACC20160002
Pennsylvania NELAP Lab ID# 68-04201, # 008



REVISED
ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase: OCONOMOWOC, WI
 Project #: 117-7413001.01
 Folder #: 127351
 Purchase Order #:
 Contract #: 2747

Page 1 of 2
 Arrival Temperature: 3.2
 Report Date: 05/26/2017
 Date Received: 05/13/2017
 Reprint Date: 05/31/2017

CT LAB#: 867208 Sample Description: MW-3D

DNR License/Well #: 4189/006

Sampled: 05/12/2017 1205

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Metals Results										
Dissolved Iron	0.281	mg/L	0.059	0.20	1			05/16/2017 17:49	NAH	EPA 6010C
Dissolved Manganese	4.5	ug/L	2.2	7.3	1	J		05/16/2017 17:49	NAH	EPA 6010C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

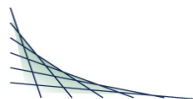
All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

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Illinois NELAP Lab ID# 200073
Kansas NELAP Lab ID# E-10368
Virginia NELAP Lab ID# 460203
Maryland Lab ID# WI00061
ISO/IEC 17025-2005 A2LA Cert # 3806.01
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID ACC20160002
Pennsylvania NELAP Lab ID# 68-04201, # 008



REVISED
ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase: OCONOMOWOC, WI
 Project #: 117-7413001.01
 Folder #: 127351
 Purchase Order #:
 Contract #: 2747

Page 1 of 6
 Arrival Temperature: 3.2
 Report Date: 05/26/2017
 Date Received: 05/13/2017
 Reprint Date: 05/31/2017

CT LAB#: 867209 Sample Description: MW-5D

DNR License/Well #: 4189/010 Sampled: 05/12/2017 1250

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Field Results										
Dissolved Oxygen (Field)	0.13	mg/L	N/A	N/A	1			05/24/2017 00:00	BMS	
OX/REDOX (Field)	-42	MV	N/A	N/A	1			05/24/2017 00:00	BMS	
Color (Field)	CLEAR		N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Conductivity (Field)	1040	umhos/cm	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Groundwater Elevation (Field)	845.08	Feet MSL	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
pH (Field)	7.28	S.U.	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Temperature (Field)	11.10	Deg. C	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Turbidity (Field)	NO		N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Inorganic Results										
Alkalinity Total	420	mg/L	10	34	1			05/22/2017 11:33	SAW	EPA 310.2
Total Chloride	140	mg/L	2.8	9.6	4			05/17/2017 01:28	AGK	EPA 9056A
Total Sulfate	50	mg/L	1.0	3.2	1			05/17/2017 01:07	AGK	EPA 9056A
Total Organic Carbon	2.8	mg/L	0.50	1.7	1			05/18/2017 05:12	AGK	EPA 9060A
Metals Results										
Total Iron	1.67	mg/L	0.034	0.11	1		05/17/2017 08:00	05/17/2017 22:52	NAH	EPA 6010C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

The groundwater elevation listed above is from the May 2016 sampling round and therefore incorrect for this round.

CT LAB#: 867209 Sample Description: MW-5D

DNR License/Well #: 4189/010

Sampled: 05/12/2017 1250

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Total Manganese	57.7	ug/L	3.4	11	1		05/17/2017 08:00	05/17/2017 22:52	NAH	EPA 6010C
Organic Results										
Acetylene	<0.23	ug/L	0.23	0.77	1	U	05/18/2017 10:46	05/18/2017 14:51	AGK	Mod RSK 175
Ethane	<0.40	ug/L	0.40	1.2	1	U	05/18/2017 10:46	05/18/2017 14:51	AGK	Mod RSK 175
Ethene	<0.50	ug/L	0.50	1.8	1	U	05/18/2017 10:46	05/18/2017 14:51	AGK	Mod RSK 175
Methane	2.4	ug/L	0.40	1.2	1		05/18/2017 10:46	05/18/2017 14:51	AGK	Mod RSK 175
Volatile Organic Compounds 8260 Comments: Suspected methylene chloride laboratory contamination.										
1,1,1,2-Tetrachloroethane	<0.20	ug/L	0.20	0.65	5	U		05/17/2017 11:03	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.25	ug/L	0.25	0.85	5	U		05/17/2017 11:03	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.085	ug/L	0.085	0.29	5	U		05/17/2017 11:03	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.25	ug/L	0.25	0.80	5	U		05/17/2017 11:03	RLD	EPA 8260C
1,1-Dichloroethane	8.6	ug/L	0.30	0.95	5			05/17/2017 11:03	RLD	EPA 8260C
1,1-Dichloroethene	0.93	ug/L	0.30	1.0	5	J		05/17/2017 11:03	RLD	EPA 8260C
1,1-Dichloropropene	<0.30	ug/L	0.30	0.95	5	U		05/17/2017 11:03	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.20	ug/L	0.20	0.65	5	U		05/17/2017 11:03	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.20	ug/L	0.20	0.70	5	U		05/17/2017 11:03	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.20	ug/L	0.20	0.60	5	U		05/17/2017 11:03	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.20	ug/L	0.20	0.60	5	U		05/17/2017 11:03	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.45	ug/L	0.45	1.5	5	U		05/17/2017 11:03	RLD	EPA 8260C
1,2-Dibromoethane	<0.35	ug/L	0.35	1.2	5	U		05/17/2017 11:03	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.20	ug/L	0.20	0.65	5	U		05/17/2017 11:03	RLD	EPA 8260C
1,2-Dichloroethane	0.26	ug/L	0.25	0.90	5	J		05/17/2017 11:03	RLD	EPA 8260C
1,2-Dichloropropane	<0.35	ug/L	0.35	1.2	5	U		05/17/2017 11:03	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<0.25	ug/L	0.25	0.80	5	U		05/17/2017 11:03	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 867209 Sample Description:MW-5D

DNR License/Well #: 4189/010

Sampled: 05/12/2017 1250

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Volatile Organic Compounds 8260 Comments: Suspected methylene chloride laboratory contamination.										
1,3-Dichlorobenzene	<0.20	ug/L	0.20	0.65	5	U		05/17/2017 11:03	RLD	EPA 8260C
1,3-Dichloropropane	<0.20	ug/L	0.20	0.65	5	U		05/17/2017 11:03	RLD	EPA 8260C
1,4-Dichlorobenzene	<0.20	ug/L	0.20	0.65	5	U		05/17/2017 11:03	RLD	EPA 8260C
1,4-Dioxane	<35	ug/L	35	120	5	U		05/17/2017 11:03	RLD	EPA 8260C
2,2-Dichloropropane	<0.25	ug/L	0.25	0.75	5	U		05/17/2017 11:03	RLD	EPA 8260C
2-Butanone	<2.5	ug/L	2.5	7.5	5	U		05/17/2017 11:03	RLD	EPA 8260C
2-Chlorotoluene	<0.15	ug/L	0.15	0.55	5	U		05/17/2017 11:03	RLD	EPA 8260C
2-Hexanone	<1.2	ug/L	1.2	4.1	5	U		05/17/2017 11:03	RLD	EPA 8260C
4-Chlorotoluene	<0.20	ug/L	0.20	0.60	5	U		05/17/2017 11:03	RLD	EPA 8260C
4-Methyl-2-pentanone	<1.2	ug/L	1.2	4.1	5	U		05/17/2017 11:03	RLD	EPA 8260C
Acetone	5.6	ug/L	1.5	5.0	5	B		05/17/2017 11:03	RLD	EPA 8260C
Benzene	<0.090	ug/L	0.090	0.30	5	U		05/17/2017 11:03	RLD	EPA 8260C
Bromobenzene	<0.20	ug/L	0.20	0.75	5	U		05/17/2017 11:03	RLD	EPA 8260C
Bromochloromethane	<0.15	ug/L	0.15	0.50	5	U		05/17/2017 11:03	RLD	EPA 8260C
Bromodichloromethane	<0.080	ug/L	0.080	0.27	5	U		05/17/2017 11:03	RLD	EPA 8260C
Bromoform	<0.20	ug/L	0.20	0.60	5	U		05/17/2017 11:03	RLD	EPA 8260C
Bromomethane	<0.40	ug/L	0.40	1.4	5	U		05/17/2017 11:03	RLD	EPA 8260C
Carbon disulfide	<0.35	ug/L	0.35	1.3	5	U		05/17/2017 11:03	RLD	EPA 8260C
Carbon tetrachloride	<0.25	ug/L	0.25	0.90	5	U		05/17/2017 11:03	RLD	EPA 8260C
Chlorobenzene	<0.20	ug/L	0.20	0.75	5	U		05/17/2017 11:03	RLD	EPA 8260C
Chloroethane	<0.35	ug/L	0.35	1.2	5	U		05/17/2017 11:03	RLD	EPA 8260C
Chloroform	<0.15	ug/L	0.15	0.55	5	U		05/17/2017 11:03	RLD	EPA 8260C
Chloromethane	<0.20	ug/L	0.20	0.65	5	U		05/17/2017 11:03	RLD	EPA 8260C
cis-1,2-Dichloroethene	78	ug/L	0.35	1.2	5			05/17/2017 11:03	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 867209 Sample Description:MW-5D

DNR License/Well #: 4189/010

Sampled: 05/12/2017 1250

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Volatile Organic Compounds 8260 Comments: Suspected methylene chloride laboratory contamination.										
cis-1,3-Dichloropropene	<0.055	ug/L	0.055	0.19	5	U	05/17/2017 11:03	05/17/2017 11:03	RLD	EPA 8260C
Dibromochloromethane	<0.15	ug/L	0.15	0.50	5	U	05/17/2017 11:03	05/17/2017 11:03	RLD	EPA 8260C
Dibromomethane	<0.25	ug/L	0.25	0.85	5	U	05/17/2017 11:03	05/17/2017 11:03	RLD	EPA 8260C
Dichlorodifluoromethane	<0.30	ug/L	0.30	0.95	5	U	05/17/2017 11:03	05/17/2017 11:03	RLD	EPA 8260C
Diisopropyl ether	<0.20	ug/L	0.20	0.70	5	U	05/17/2017 11:03	05/17/2017 11:03	RLD	EPA 8260C
Ethylbenzene	<0.20	ug/L	0.20	0.75	5	U	05/17/2017 11:03	05/17/2017 11:03	RLD	EPA 8260C
Hexachlorobutadiene	<0.25	ug/L	0.25	0.80	5	U	05/17/2017 11:03	05/17/2017 11:03	RLD	EPA 8260C
Isopropylbenzene	<0.20	ug/L	0.20	0.60	5	U	05/17/2017 11:03	05/17/2017 11:03	RLD	EPA 8260C
m & p-Xylene	<0.35	ug/L	0.35	1.2	5	U	05/17/2017 11:03	05/17/2017 11:03	RLD	EPA 8260C
Methyl tert-butyl ether	<0.20	ug/L	0.20	0.60	5	U	05/17/2017 11:03	05/17/2017 11:03	RLD	EPA 8260C
Methylene chloride	1.9	ug/L	0.25	0.80	5		05/17/2017 11:03	05/17/2017 11:03	RLD	EPA 8260C
n-Butylbenzene	<0.15	ug/L	0.15	0.55	5	U	05/17/2017 11:03	05/17/2017 11:03	RLD	EPA 8260C
n-Propylbenzene	<0.20	ug/L	0.20	0.65	5	U	05/17/2017 11:03	05/17/2017 11:03	RLD	EPA 8260C
Naphthalene	<0.15	ug/L	0.15	0.50	5	U	05/17/2017 11:03	05/17/2017 11:03	RLD	EPA 8260C
o-Xylene	<0.20	ug/L	0.20	0.70	5	U	05/17/2017 11:03	05/17/2017 11:03	RLD	EPA 8260C
p-Isopropyltoluene	<0.20	ug/L	0.20	0.65	5	U	05/17/2017 11:03	05/17/2017 11:03	RLD	EPA 8260C
sec-Butylbenzene	<0.25	ug/L	0.25	0.80	5	U	05/17/2017 11:03	05/17/2017 11:03	RLD	EPA 8260C
Styrene	<0.15	ug/L	0.15	0.55	5	U	05/17/2017 11:03	05/17/2017 11:03	RLD	EPA 8260C
tert-Butylbenzene	<0.20	ug/L	0.20	0.70	5	U	05/17/2017 11:03	05/17/2017 11:03	RLD	EPA 8260C
Tetrachloroethene	<0.25	ug/L	0.25	0.90	5	U	05/17/2017 11:03	05/17/2017 11:03	RLD	EPA 8260C
Tetrahydrofuran	<2.0	ug/L	2.0	7.5	5	U	05/17/2017 11:03	05/17/2017 11:03	RLD	EPA 8260C
Toluene	<0.20	ug/L	0.20	0.65	5	U	05/17/2017 11:03	05/17/2017 11:03	RLD	EPA 8260C
trans-1,2-Dichloroethene	10	ug/L	0.20	0.70	5		05/17/2017 11:03	05/17/2017 11:03	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.095	ug/L	0.095	0.32	5	U	05/17/2017 11:03	05/17/2017 11:03	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 867209 Sample Description:MW-5D

DNR License/Well #: 4189/010

Sampled: 05/12/2017 1250

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Volatile Organic Compounds 8260 Comments: Suspected methylene chloride laboratory contamination.										
Trichloroethene	78	ug/L	0.25	0.85	5			05/17/2017 11:03	RLD	EPA 8260C
Trichlorofluoromethane	<0.45	ug/L	0.45	0.70	5	U		05/17/2017 11:03	RLD	EPA 8260C
Vinyl acetate	<1.1	ug/L	1.1	3.7	5	U		05/17/2017 11:03	RLD	EPA 8260C
Vinyl chloride	3.1	ug/L	0.095	0.32	5			05/17/2017 11:03	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

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Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications

Wisconsin (WDNR) Chemistry ID# 157066030
 Wisconsin (DATCP) Bacteriology ID# 105-289
 Louisiana NELAP (primary) ID# ACC20160002
 Illinois NELAP Lab ID# 200073
 Kansas NELAP Lab ID# E-10368
 Virginia NELAP Lab ID# 460203
 Maryland Lab ID# WI00061
 ISO/IEC 17025-2005 A2LA Cert # 3806.01
 DoD-ELAP A2LA 3806.01
 GA EPD Stipulation ID ACC20160002
 Pennsylvania NELAP Lab ID# 68-04201, # 008

**REVISED
 ANALYTICAL REPORT**

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase: OCONOMOWOC, WI
 Project #: 117-7413001.01
 Folder #: 127351
 Purchase Order #:
 Contract #: 2747

Page 1 of 2
 Arrival Temperature: 3.2
 Report Date: 05/26/2017
 Date Received: 05/13/2017
 Reprint Date: 05/31/2017

CT LAB#: 867210	Sample Description: MW-5D	DNR License/Well #: 4189/010	Sampled: 05/12/2017 1250
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Metals Results										
Dissolved Iron	1.46	mg/L	0.059	0.20	1		05/16/2017 17:56	05/16/2017 17:56	NAH	EPA 6010C
Dissolved Manganese	50.0	ug/L	2.2	7.3	1		05/16/2017 17:56	05/16/2017 17:56	NAH	EPA 6010C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

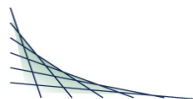
Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

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Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
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X	Analyte exceeded calibration range.	
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Z	Specified calibration criteria was not met.	

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Illinois NELAP Lab ID# 200073
Kansas NELAP Lab ID# E-10368
Virginia NELAP Lab ID# 460203
Maryland Lab ID# WI00061
ISO/IEC 17025-2005 A2LA Cert # 3806.01
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID ACC20160002
Pennsylvania NELAP Lab ID# 68-04201, # 008



REVISED
ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase: OCONOMOWOC, WI
 Project #: 117-7413001.01
 Folder #: 127351
 Purchase Order #:
 Contract #: 2747

Page 1 of 5
 Arrival Temperature: 3.2
 Report Date: 05/26/2017
 Date Received: 05/13/2017
 Reprint Date: 05/31/2017

CT LAB#: 867211 Sample Description: MW-9S

DNR License/Well #: 4189/014 Sampled: 05/12/2017 1345

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Field Results										
Dissolved Oxygen (Field)	0.01	mg/L	N/A	N/A	1			05/24/2017 00:00	BMS	
OX/REDOX (Field)	-36	MV	N/A	N/A	1			05/24/2017 00:00	BMS	
Color (Field)	CLEAR		N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Conductivity (Field)	1120	umhos/cm	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Groundwater Elevation (Field)	846.80	Feet MSL	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
pH (Field)	7.23	S.U.	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Temperature (Field)	13.36	Deg. C	N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Turbidity (Field)	NO		N/A	N/A	1			05/24/2017 00:00	BMS	FIELD
Inorganic Results										
Alkalinity Total	380	mg/L	10	34	1			05/22/2017 11:34	SAW	EPA 310.2
Total Chloride	210	mg/L	4.2	14	6			05/17/2017 02:16	AGK	EPA 9056A
Total Sulfate	52	mg/L	1.0	3.2	1			05/17/2017 01:55	AGK	EPA 9056A
Total Organic Carbon	3.2	mg/L	0.50	1.7	1			05/18/2017 05:24	AGK	EPA 9060A
Metals Results										
Total Iron	2.63	mg/L	0.034	0.11	1		05/17/2017 08:00	05/17/2017 22:59	NAH	EPA 6010C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

The groundwater elevation listed above is from the May 2016 sampling round and therefore incorrect for this round.

CT LAB#: 867211 Sample Description: MW-9S

DNR License/Well #: 4189/014

Sampled: 05/12/2017 1345

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Total Manganese	147	ug/L	3.4	11	1		05/17/2017 08:00	05/17/2017 22:59	NAH	EPA 6010C
Organic Results										
Acetylene	<0.23	ug/L	0.23	0.77	1	U	05/18/2017 10:46	05/18/2017 15:01	AGK	Mod RSK 175
Ethane	<0.40	ug/L	0.40	1.2	1	U	05/18/2017 10:46	05/18/2017 15:01	AGK	Mod RSK 175
Ethene	<0.50	ug/L	0.50	1.8	1	U	05/18/2017 10:46	05/18/2017 15:01	AGK	Mod RSK 175
Methane	2.2	ug/L	0.40	1.2	1		05/18/2017 10:46	05/18/2017 15:01	AGK	Mod RSK 175
1,1,1,2-Tetrachloroethane	<0.040	ug/L	0.040	0.13	1	U		05/17/2017 12:00	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.050	ug/L	0.050	0.17	1	U		05/17/2017 12:00	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.017	ug/L	0.017	0.057	1	U		05/17/2017 12:00	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.050	ug/L	0.050	0.16	1	U		05/17/2017 12:00	RLD	EPA 8260C
1,1-Dichloroethane	0.17	ug/L	0.060	0.19	1	J		05/17/2017 12:00	RLD	EPA 8260C
1,1-Dichloroethene	<0.060	ug/L	0.060	0.20	1	U		05/17/2017 12:00	RLD	EPA 8260C
1,1-Dichloropropene	<0.060	ug/L	0.060	0.19	1	U		05/17/2017 12:00	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/17/2017 12:00	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.040	ug/L	0.040	0.14	1	U		05/17/2017 12:00	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.040	ug/L	0.040	0.12	1	U		05/17/2017 12:00	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.040	ug/L	0.040	0.12	1	U		05/17/2017 12:00	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.090	ug/L	0.090	0.29	1	U		05/17/2017 12:00	RLD	EPA 8260C
1,2-Dibromoethane	<0.070	ug/L	0.070	0.23	1	U		05/17/2017 12:00	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/17/2017 12:00	RLD	EPA 8260C
1,2-Dichloroethane	<0.050	ug/L	0.050	0.18	1	U		05/17/2017 12:00	RLD	EPA 8260C
1,2-Dichloropropane	<0.070	ug/L	0.070	0.23	1	U		05/17/2017 12:00	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<0.050	ug/L	0.050	0.16	1	U		05/17/2017 12:00	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/17/2017 12:00	RLD	EPA 8260C
1,3-Dichloropropane	<0.040	ug/L	0.040	0.13	1	U		05/17/2017 12:00	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 867211 Sample Description: MW-9S

DNR License/Well #: 4189/014

Sampled: 05/12/2017 1345

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,4-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/17/2017 12:00	RLD	EPA 8260C
1,4-Dioxane	<7.0	ug/L	7.0	23	1	U		05/17/2017 12:00	RLD	EPA 8260C
2,2-Dichloropropane	<0.050	ug/L	0.050	0.15	1	U		05/17/2017 12:00	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.5	1	U		05/17/2017 12:00	RLD	EPA 8260C
2-Chlorotoluene	<0.030	ug/L	0.030	0.11	1	U		05/17/2017 12:00	RLD	EPA 8260C
2-Hexanone	<0.24	ug/L	0.24	0.81	1	U		05/17/2017 12:00	RLD	EPA 8260C
4-Chlorotoluene	<0.040	ug/L	0.040	0.12	1	U		05/17/2017 12:00	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.24	ug/L	0.24	0.82	1	U		05/17/2017 12:00	RLD	EPA 8260C
Acetone	0.37	ug/L	0.30	1.0	1	J B		05/17/2017 12:00	RLD	EPA 8260C
Benzene	<0.018	ug/L	0.018	0.059	1	U		05/17/2017 12:00	RLD	EPA 8260C
Bromobenzene	<0.040	ug/L	0.040	0.15	1	U		05/17/2017 12:00	RLD	EPA 8260C
Bromochloromethane	<0.030	ug/L	0.030	0.099	1	U		05/17/2017 12:00	RLD	EPA 8260C
Bromodichloromethane	<0.016	ug/L	0.016	0.054	1	U		05/17/2017 12:00	RLD	EPA 8260C
Bromoform	<0.040	ug/L	0.040	0.12	1	U		05/17/2017 12:00	RLD	EPA 8260C
Bromomethane	<0.080	ug/L	0.080	0.28	1	U		05/17/2017 12:00	RLD	EPA 8260C
Carbon disulfide	<0.070	ug/L	0.070	0.25	1	U		05/17/2017 12:00	RLD	EPA 8260C
Carbon tetrachloride	<0.050	ug/L	0.050	0.18	1	U		05/17/2017 12:00	RLD	EPA 8260C
Chlorobenzene	<0.040	ug/L	0.040	0.15	1	U		05/17/2017 12:00	RLD	EPA 8260C
Chloroethane	<0.070	ug/L	0.070	0.23	1	U		05/17/2017 12:00	RLD	EPA 8260C
Chloroform	<0.030	ug/L	0.030	0.11	1	U		05/17/2017 12:00	RLD	EPA 8260C
Chloromethane	0.062	ug/L	0.040	0.13	1	J		05/17/2017 12:00	RLD	EPA 8260C
cis-1,2-Dichloroethene	<0.070	ug/L	0.070	0.23	1	U		05/17/2017 12:00	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.011	ug/L	0.011	0.038	1	U		05/17/2017 12:00	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1	U		05/17/2017 12:00	RLD	EPA 8260C
Dibromomethane	<0.050	ug/L	0.050	0.17	1	U		05/17/2017 12:00	RLD	EPA 8260C
Dichlorodifluoromethane	<0.060	ug/L	0.060	0.19	1	U		05/17/2017 12:00	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 867211 Sample Description:MW-9S

DNR License/Well #: 4189/014

Sampled: 05/12/2017 1345

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Diisopropyl ether	<0.040	ug/L	0.040	0.14	1	U	05/17/2017 12:00	05/17/2017 12:00	RLD	EPA 8260C
Ethylbenzene	<0.040	ug/L	0.040	0.15	1	U	05/17/2017 12:00	05/17/2017 12:00	RLD	EPA 8260C
Hexachlorobutadiene	<0.050	ug/L	0.050	0.16	1	U	05/17/2017 12:00	05/17/2017 12:00	RLD	EPA 8260C
Isopropylbenzene	<0.040	ug/L	0.040	0.12	1	U	05/17/2017 12:00	05/17/2017 12:00	RLD	EPA 8260C
m & p-Xylene	<0.070	ug/L	0.070	0.23	1	U	05/17/2017 12:00	05/17/2017 12:00	RLD	EPA 8260C
Methyl tert-butyl ether	<0.040	ug/L	0.040	0.12	1	U	05/17/2017 12:00	05/17/2017 12:00	RLD	EPA 8260C
Methylene chloride	<0.050	ug/L	0.050	0.16	1	U	05/17/2017 12:00	05/17/2017 12:00	RLD	EPA 8260C
n-Butylbenzene	<0.030	ug/L	0.030	0.11	1	U	05/17/2017 12:00	05/17/2017 12:00	RLD	EPA 8260C
n-Propylbenzene	<0.040	ug/L	0.040	0.13	1	U	05/17/2017 12:00	05/17/2017 12:00	RLD	EPA 8260C
Naphthalene	<0.030	ug/L	0.030	0.10	1	U	05/17/2017 12:00	05/17/2017 12:00	RLD	EPA 8260C
o-Xylene	<0.040	ug/L	0.040	0.14	1	U	05/17/2017 12:00	05/17/2017 12:00	RLD	EPA 8260C
p-Isopropyltoluene	<0.040	ug/L	0.040	0.13	1	U	05/17/2017 12:00	05/17/2017 12:00	RLD	EPA 8260C
sec-Butylbenzene	<0.050	ug/L	0.050	0.16	1	U	05/17/2017 12:00	05/17/2017 12:00	RLD	EPA 8260C
Styrene	<0.030	ug/L	0.030	0.11	1	U	05/17/2017 12:00	05/17/2017 12:00	RLD	EPA 8260C
tert-Butylbenzene	<0.040	ug/L	0.040	0.14	1	U	05/17/2017 12:00	05/17/2017 12:00	RLD	EPA 8260C
Tetrachloroethene	<0.050	ug/L	0.050	0.18	1	U	05/17/2017 12:00	05/17/2017 12:00	RLD	EPA 8260C
Tetrahydrofuran	<0.40	ug/L	0.40	1.5	1	U	05/17/2017 12:00	05/17/2017 12:00	RLD	EPA 8260C
Toluene	<0.040	ug/L	0.040	0.13	1	U	05/17/2017 12:00	05/17/2017 12:00	RLD	EPA 8260C
trans-1,2-Dichloroethene	<0.040	ug/L	0.040	0.14	1	U	05/17/2017 12:00	05/17/2017 12:00	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.019	ug/L	0.019	0.063	1	U	05/17/2017 12:00	05/17/2017 12:00	RLD	EPA 8260C
Trichloroethene	0.16	ug/L	0.050	0.17	1	J	05/17/2017 12:00	05/17/2017 12:00	RLD	EPA 8260C
Trichlorofluoromethane	<0.090	ug/L	0.090	0.14	1	U	05/17/2017 12:00	05/17/2017 12:00	RLD	EPA 8260C
Vinyl acetate	<0.22	ug/L	0.22	0.73	1	U	05/17/2017 12:00	05/17/2017 12:00	RLD	EPA 8260C
Vinyl chloride	<0.019	ug/L	0.019	0.064	1	U	05/17/2017 12:00	05/17/2017 12:00	RLD	EPA 8260C

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Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
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U	Analyte concentration was below detection limit.	
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DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID ACC20160002
Pennsylvania NELAP Lab ID# 68-04201, # 008

**REVISED
 ANALYTICAL REPORT**

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase: OCONOMOWOC, WI
 Project #: 117-7413001.01
 Folder #: 127351
 Purchase Order #:
 Contract #: 2747

Page 1 of 2
 Arrival Temperature: 3.2
 Report Date: 05/26/2017
 Date Received: 05/13/2017
 Reprint Date: 05/31/2017

CT LAB#: 867212	Sample Description: MW-9S	DNR License/Well #: 4189/014	Sampled: 05/12/2017 1345
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Metals Results										
Dissolved Iron	0.800	mg/L	0.059	0.20	1		05/16/2017 18:03	18:03	NAH	EPA 6010C
Dissolved Manganese	123	ug/L	2.2	7.3	1		05/16/2017 18:03	18:03	NAH	EPA 6010C

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Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

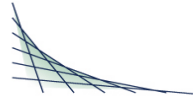
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Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications

Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
Louisiana NELAP (primary) ID# ACC20160002
Illinois NELAP Lab ID# 200073
Kansas NELAP Lab ID# E-10368
Virginia NELAP Lab ID# 460203
Maryland Lab ID# WI00061
ISO/IEC 17025-2005 A2LA Cert # 3806.01
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID ACC20160002
Pennsylvania NELAP Lab ID# 68-04201, # 008



REVISED
ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase: OCONOMOWOC, WI
 Project #: 117-7413001.01
 Folder #: 127351
 Purchase Order #:
 Contract #: 2747

Page 1 of 5
 Arrival Temperature: 3.2
 Report Date: 05/26/2017
 Date Received: 05/13/2017
 Reprint Date: 05/31/2017

CT LAB#: 867223	Sample Description: FILTER BLANK	DNR License/Well #: 4189/997	Sampled: 05/12/2017 1420
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Organic Results										
1,1,1,2-Tetrachloroethane	<0.040	ug/L	0.040	0.13	1	U		05/17/2017 18:47	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.050	ug/L	0.050	0.17	1	U		05/17/2017 18:47	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.017	ug/L	0.017	0.057	1	U		05/17/2017 18:47	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.050	ug/L	0.050	0.16	1	U		05/17/2017 18:47	RLD	EPA 8260C
1,1-Dichloroethane	<0.060	ug/L	0.060	0.19	1	U		05/17/2017 18:47	RLD	EPA 8260C
1,1-Dichloroethene	<0.060	ug/L	0.060	0.20	1	U		05/17/2017 18:47	RLD	EPA 8260C
1,1-Dichloropropene	<0.060	ug/L	0.060	0.19	1	U		05/17/2017 18:47	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/17/2017 18:47	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.040	ug/L	0.040	0.14	1	U		05/17/2017 18:47	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.040	ug/L	0.040	0.12	1	U		05/17/2017 18:47	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.040	ug/L	0.040	0.12	1	U		05/17/2017 18:47	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.090	ug/L	0.090	0.29	1	U		05/17/2017 18:47	RLD	EPA 8260C
1,2-Dibromoethane	<0.070	ug/L	0.070	0.23	1	U		05/17/2017 18:47	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/17/2017 18:47	RLD	EPA 8260C
1,2-Dichloroethane	<0.050	ug/L	0.050	0.18	1	U		05/17/2017 18:47	RLD	EPA 8260C
1,2-Dichloropropane	<0.070	ug/L	0.070	0.23	1	U		05/17/2017 18:47	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 867223 Sample Description: FILTER BLANK

DNR License/Well #: 4189/997

Sampled: 05/12/2017 1420

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,3,5-Trimethylbenzene	<0.050	ug/L	0.050	0.16	1	U		05/17/2017 18:47	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/17/2017 18:47	RLD	EPA 8260C
1,3-Dichloropropane	<0.040	ug/L	0.040	0.13	1	U		05/17/2017 18:47	RLD	EPA 8260C
1,4-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/17/2017 18:47	RLD	EPA 8260C
1,4-Dioxane	<7.0	ug/L	7.0	23	1	U		05/17/2017 18:47	RLD	EPA 8260C
2,2-Dichloropropane	<0.050	ug/L	0.050	0.15	1	U		05/17/2017 18:47	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.5	1	U		05/17/2017 18:47	RLD	EPA 8260C
2-Chlorotoluene	<0.030	ug/L	0.030	0.11	1	U		05/17/2017 18:47	RLD	EPA 8260C
2-Hexanone	<0.24	ug/L	0.24	0.81	1	U		05/17/2017 18:47	RLD	EPA 8260C
4-Chlorotoluene	<0.040	ug/L	0.040	0.12	1	U		05/17/2017 18:47	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.24	ug/L	0.24	0.82	1	U		05/17/2017 18:47	RLD	EPA 8260C
Acetone	0.71	ug/L	0.30	1.0	1	J B		05/17/2017 18:47	RLD	EPA 8260C
Benzene	<0.018	ug/L	0.018	0.059	1	U		05/17/2017 18:47	RLD	EPA 8260C
Bromobenzene	<0.040	ug/L	0.040	0.15	1	U		05/17/2017 18:47	RLD	EPA 8260C
Bromochloromethane	<0.030	ug/L	0.030	0.099	1	U		05/17/2017 18:47	RLD	EPA 8260C
Bromodichloromethane	<0.016	ug/L	0.016	0.054	1	U		05/17/2017 18:47	RLD	EPA 8260C
Bromoform	<0.040	ug/L	0.040	0.12	1	U		05/17/2017 18:47	RLD	EPA 8260C
Bromomethane	<0.080	ug/L	0.080	0.28	1	U Z		05/17/2017 18:47	RLD	EPA 8260C
Carbon disulfide	<0.070	ug/L	0.070	0.25	1	U		05/17/2017 18:47	RLD	EPA 8260C
Carbon tetrachloride	<0.050	ug/L	0.050	0.18	1	U		05/17/2017 18:47	RLD	EPA 8260C
Chlorobenzene	<0.040	ug/L	0.040	0.15	1	U		05/17/2017 18:47	RLD	EPA 8260C
Chloroethane	<0.070	ug/L	0.070	0.23	1	U		05/17/2017 18:47	RLD	EPA 8260C
Chloroform	<0.030	ug/L	0.030	0.11	1	U		05/17/2017 18:47	RLD	EPA 8260C
Chloromethane	<0.040	ug/L	0.040	0.13	1	U		05/17/2017 18:47	RLD	EPA 8260C
cis-1,2-Dichloroethene	<0.070	ug/L	0.070	0.23	1	U		05/17/2017 18:47	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.011	ug/L	0.011	0.038	1	U		05/17/2017 18:47	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 867223 Sample Description: FILTER BLANK

DNR License/Well #: 4189/997

Sampled: 05/12/2017 1420

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1	U		05/17/2017 18:47	RLD	EPA 8260C
Dibromomethane	<0.050	ug/L	0.050	0.17	1	U		05/17/2017 18:47	RLD	EPA 8260C
Dichlorodifluoromethane	<0.060	ug/L	0.060	0.19	1	U		05/17/2017 18:47	RLD	EPA 8260C
Diisopropyl ether	<0.040	ug/L	0.040	0.14	1	U		05/17/2017 18:47	RLD	EPA 8260C
Ethylbenzene	<0.040	ug/L	0.040	0.15	1	U		05/17/2017 18:47	RLD	EPA 8260C
Hexachlorobutadiene	<0.050	ug/L	0.050	0.16	1	U		05/17/2017 18:47	RLD	EPA 8260C
Isopropylbenzene	<0.040	ug/L	0.040	0.12	1	U		05/17/2017 18:47	RLD	EPA 8260C
m & p-Xylene	<0.070	ug/L	0.070	0.23	1	U		05/17/2017 18:47	RLD	EPA 8260C
Methyl tert-butyl ether	<0.040	ug/L	0.040	0.12	1	U		05/17/2017 18:47	RLD	EPA 8260C
Methylene chloride	<0.050	ug/L	0.050	0.16	1	U		05/17/2017 18:47	RLD	EPA 8260C
n-Butylbenzene	<0.030	ug/L	0.030	0.11	1	U		05/17/2017 18:47	RLD	EPA 8260C
n-Propylbenzene	<0.040	ug/L	0.040	0.13	1	U		05/17/2017 18:47	RLD	EPA 8260C
Naphthalene	0.043	ug/L	0.030	0.10	1	J		05/17/2017 18:47	RLD	EPA 8260C
o-Xylene	<0.040	ug/L	0.040	0.14	1	U		05/17/2017 18:47	RLD	EPA 8260C
p-Isopropyltoluene	<0.040	ug/L	0.040	0.13	1	U		05/17/2017 18:47	RLD	EPA 8260C
sec-Butylbenzene	<0.050	ug/L	0.050	0.16	1	U		05/17/2017 18:47	RLD	EPA 8260C
Styrene	<0.030	ug/L	0.030	0.11	1	U		05/17/2017 18:47	RLD	EPA 8260C
tert-Butylbenzene	<0.040	ug/L	0.040	0.14	1	U		05/17/2017 18:47	RLD	EPA 8260C
Tetrachloroethene	0.092	ug/L	0.050	0.18	1	J		05/17/2017 18:47	RLD	EPA 8260C
Tetrahydrofuran	<0.40	ug/L	0.40	1.5	1	U		05/17/2017 18:47	RLD	EPA 8260C
Toluene	0.040	ug/L	0.040	0.13	1	J		05/17/2017 18:47	RLD	EPA 8260C
trans-1,2-Dichloroethene	<0.040	ug/L	0.040	0.14	1	U		05/17/2017 18:47	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.019	ug/L	0.019	0.063	1	U		05/17/2017 18:47	RLD	EPA 8260C
Trichloroethene	<0.050	ug/L	0.050	0.17	1	U		05/17/2017 18:47	RLD	EPA 8260C
Trichlorofluoromethane	<0.090	ug/L	0.090	0.14	1	U		05/17/2017 18:47	RLD	EPA 8260C
Vinyl acetate	<0.22	ug/L	0.22	0.73	1	U		05/17/2017 18:47	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 867223 Sample Description: FILTER BLANK DNR License/Well #: 4189/997 Sampled: 05/12/2017 1420

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Vinyl chloride	<0.019	ug/L	0.019	0.064	1	U		05/17/2017 18:47	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

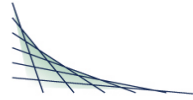
Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications
Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
Louisiana NELAP (primary) ID# ACC20160002
Illinois NELAP Lab ID# 200073
Kansas NELAP Lab ID# E-10368
Virginia NELAP Lab ID# 460203
Maryland Lab ID# WI00061
ISO/IEC 17025-2005 A2LA Cert # 3806.01
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID ACC20160002
Pennsylvania NELAP Lab ID# 68-04201, # 008



**REVISED
ANALYTICAL REPORT**

TETRA TECH
MARK MANTHEY
175 N CORPORATE DRIVE
SUITE 100
BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
Project Phase: OCONOMOWOC, WI
Project #: 117-7413001.01
Folder #: 127351
Purchase Order #:
Contract #: 2747

Page 1 of 5
Arrival Temperature: 3.2
Report Date: 05/26/2017
Date Received: 05/13/2017
Reprint Date: 05/31/2017

CT LAB#: 867229	Sample Description: TB-4	DNR License/Well #: 4189/999	Sampled: 05/12/2017
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Organic Results										
1,1,1,2-Tetrachloroethane	<0.040	ug/L	0.040	0.13	1	U		05/17/2017 18:19	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.050	ug/L	0.050	0.17	1	U		05/17/2017 18:19	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.017	ug/L	0.017	0.057	1	U		05/17/2017 18:19	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.050	ug/L	0.050	0.16	1	U		05/17/2017 18:19	RLD	EPA 8260C
1,1-Dichloroethane	<0.060	ug/L	0.060	0.19	1	U		05/17/2017 18:19	RLD	EPA 8260C
1,1-Dichloroethene	<0.060	ug/L	0.060	0.20	1	U		05/17/2017 18:19	RLD	EPA 8260C
1,1-Dichloropropene	<0.060	ug/L	0.060	0.19	1	U		05/17/2017 18:19	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/17/2017 18:19	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.040	ug/L	0.040	0.14	1	U		05/17/2017 18:19	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.040	ug/L	0.040	0.12	1	U		05/17/2017 18:19	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.040	ug/L	0.040	0.12	1	U		05/17/2017 18:19	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.090	ug/L	0.090	0.29	1	U		05/17/2017 18:19	RLD	EPA 8260C
1,2-Dibromoethane	<0.070	ug/L	0.070	0.23	1	U		05/17/2017 18:19	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/17/2017 18:19	RLD	EPA 8260C
1,2-Dichloroethane	<0.050	ug/L	0.050	0.18	1	U		05/17/2017 18:19	RLD	EPA 8260C
1,2-Dichloropropane	<0.070	ug/L	0.070	0.23	1	U		05/17/2017 18:19	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 867229 Sample Description:TB-4

DNR License/Well #: 4189/999

Sampled: 05/12/2017

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,3,5-Trimethylbenzene	<0.050	ug/L	0.050	0.16	1	U		05/17/2017 18:19	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/17/2017 18:19	RLD	EPA 8260C
1,3-Dichloropropane	<0.040	ug/L	0.040	0.13	1	U		05/17/2017 18:19	RLD	EPA 8260C
1,4-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		05/17/2017 18:19	RLD	EPA 8260C
1,4-Dioxane	<7.0	ug/L	7.0	23	1	U		05/17/2017 18:19	RLD	EPA 8260C
2,2-Dichloropropane	<0.050	ug/L	0.050	0.15	1	U		05/17/2017 18:19	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.5	1	U		05/17/2017 18:19	RLD	EPA 8260C
2-Chlorotoluene	<0.030	ug/L	0.030	0.11	1	U		05/17/2017 18:19	RLD	EPA 8260C
2-Hexanone	<0.24	ug/L	0.24	0.81	1	U		05/17/2017 18:19	RLD	EPA 8260C
4-Chlorotoluene	<0.040	ug/L	0.040	0.12	1	U		05/17/2017 18:19	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.24	ug/L	0.24	0.82	1	U		05/17/2017 18:19	RLD	EPA 8260C
Acetone	1.0	ug/L	0.30	1.0	1	B		05/17/2017 18:19	RLD	EPA 8260C
Benzene	<0.018	ug/L	0.018	0.059	1	U		05/17/2017 18:19	RLD	EPA 8260C
Bromobenzene	<0.040	ug/L	0.040	0.15	1	U		05/17/2017 18:19	RLD	EPA 8260C
Bromochloromethane	<0.030	ug/L	0.030	0.099	1	U		05/17/2017 18:19	RLD	EPA 8260C
Bromodichloromethane	<0.016	ug/L	0.016	0.054	1	U		05/17/2017 18:19	RLD	EPA 8260C
Bromoform	<0.040	ug/L	0.040	0.12	1	U		05/17/2017 18:19	RLD	EPA 8260C
Bromomethane	<0.080	ug/L	0.080	0.28	1	U Z		05/17/2017 18:19	RLD	EPA 8260C
Carbon disulfide	<0.070	ug/L	0.070	0.25	1	U		05/17/2017 18:19	RLD	EPA 8260C
Carbon tetrachloride	<0.050	ug/L	0.050	0.18	1	U		05/17/2017 18:19	RLD	EPA 8260C
Chlorobenzene	<0.040	ug/L	0.040	0.15	1	U		05/17/2017 18:19	RLD	EPA 8260C
Chloroethane	<0.070	ug/L	0.070	0.23	1	U		05/17/2017 18:19	RLD	EPA 8260C
Chloroform	<0.030	ug/L	0.030	0.11	1	U		05/17/2017 18:19	RLD	EPA 8260C
Chloromethane	0.040	ug/L	0.040	0.13	1	J		05/17/2017 18:19	RLD	EPA 8260C
cis-1,2-Dichloroethene	<0.070	ug/L	0.070	0.23	1	U		05/17/2017 18:19	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.011	ug/L	0.011	0.038	1	U		05/17/2017 18:19	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 867229 Sample Description:TB-4

DNR License/Well #: 4189/999

Sampled: 05/12/2017

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1	U		05/17/2017 18:19	RLD	EPA 8260C
Dibromomethane	<0.050	ug/L	0.050	0.17	1	U		05/17/2017 18:19	RLD	EPA 8260C
Dichlorodifluoromethane	<0.060	ug/L	0.060	0.19	1	U		05/17/2017 18:19	RLD	EPA 8260C
Diisopropyl ether	<0.040	ug/L	0.040	0.14	1	U		05/17/2017 18:19	RLD	EPA 8260C
Ethylbenzene	<0.040	ug/L	0.040	0.15	1	U		05/17/2017 18:19	RLD	EPA 8260C
Hexachlorobutadiene	<0.050	ug/L	0.050	0.16	1	U		05/17/2017 18:19	RLD	EPA 8260C
Isopropylbenzene	<0.040	ug/L	0.040	0.12	1	U		05/17/2017 18:19	RLD	EPA 8260C
m & p-Xylene	<0.070	ug/L	0.070	0.23	1	U		05/17/2017 18:19	RLD	EPA 8260C
Methyl tert-butyl ether	<0.040	ug/L	0.040	0.12	1	U		05/17/2017 18:19	RLD	EPA 8260C
Methylene chloride	<0.050	ug/L	0.050	0.16	1	U		05/17/2017 18:19	RLD	EPA 8260C
n-Butylbenzene	<0.030	ug/L	0.030	0.11	1	U		05/17/2017 18:19	RLD	EPA 8260C
n-Propylbenzene	<0.040	ug/L	0.040	0.13	1	U		05/17/2017 18:19	RLD	EPA 8260C
Naphthalene	<0.030	ug/L	0.030	0.10	1	U		05/17/2017 18:19	RLD	EPA 8260C
o-Xylene	<0.040	ug/L	0.040	0.14	1	U		05/17/2017 18:19	RLD	EPA 8260C
p-Isopropyltoluene	<0.040	ug/L	0.040	0.13	1	U		05/17/2017 18:19	RLD	EPA 8260C
sec-Butylbenzene	<0.050	ug/L	0.050	0.16	1	U		05/17/2017 18:19	RLD	EPA 8260C
Styrene	<0.030	ug/L	0.030	0.11	1	U		05/17/2017 18:19	RLD	EPA 8260C
tert-Butylbenzene	<0.040	ug/L	0.040	0.14	1	U		05/17/2017 18:19	RLD	EPA 8260C
Tetrachloroethene	<0.050	ug/L	0.050	0.18	1	U		05/17/2017 18:19	RLD	EPA 8260C
Tetrahydrofuran	<0.40	ug/L	0.40	1.5	1	U		05/17/2017 18:19	RLD	EPA 8260C
Toluene	<0.040	ug/L	0.040	0.13	1	U		05/17/2017 18:19	RLD	EPA 8260C
trans-1,2-Dichloroethene	<0.040	ug/L	0.040	0.14	1	U		05/17/2017 18:19	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.019	ug/L	0.019	0.063	1	U		05/17/2017 18:19	RLD	EPA 8260C
Trichloroethene	<0.050	ug/L	0.050	0.17	1	U		05/17/2017 18:19	RLD	EPA 8260C
Trichlorofluoromethane	<0.090	ug/L	0.090	0.14	1	U		05/17/2017 18:19	RLD	EPA 8260C
Vinyl acetate	<0.22	ug/L	0.22	0.73	1	U		05/17/2017 18:19	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 867229 Sample Description:TB-4 DNR License/Well #: 4189/999 Sampled: 05/12/2017

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Vinyl chloride	<0.019	ug/L	0.019	0.064	1	U		05/17/2017 18:19	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications
Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
Louisiana NELAP (primary) ID# ACC20160002
Illinois NELAP Lab ID# 200073
Kansas NELAP Lab ID# E-10368
Virginia NELAP Lab ID# 460203
Maryland Lab ID# WI00061
ISO/IEC 17025-2005 A2LA Cert # 3806.01
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID ACC20160002
Pennsylvania NELAP Lab ID# 68-04201, # 008

QC SUMMARY REPORT

TETRA TECH

SDG #: 0

Folder #: 127351

**Project Name: OCONOMOWOC
 ELECTROPLATING
 Project Number: 117-7413001.01**

Duplicate

Analytical Run #:	137915	Analysis Date:	05/18/2017	Prep Batch #:	Matrix:	GROUND WATER
CTLab #:	868914	Analysis Time:	06:09	Prep Date/Time:	Method:	SW9060
Parent Sample #:	867211	Analyst:	AGK	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Organic Carbon	3.09	mg/L	3.2					3	20

TETRA TECH

SDG #: 0

Folder #: 127351

Project Name: OCONOMOWOC

ELECTROPLATING

Project Number: 117-7413001.01

Lab Control Spike Water

Analytical Run #:	137915	Analysis Date:	05/18/2017	Prep Batch #:		Matrix:	LIQUID
CTLab #:	868908	Analysis Time:	00:25	Prep Date/Time:		Method:	SW9060
Parent Sample #:		Analyst:	AGK	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Organic Carbon	52.94	mg/L			50.00	106	88 --- 113		

TETRA TECH

SDG #: 0

Folder #: 127351

Project Name: OCONOMOWOC

ELECTROPLATING

Project Number: 117-7413001.01

Method Blank Water

Analytical Run #:	137915	Analysis Date:	05/18/2017	Prep Batch #:		Matrix:	LIQUID
CTLab #:	868909	Analysis Time:	00:40	Prep Date/Time:		Method:	SW9060
Parent Sample #:		Analyst:	AGK	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Organic Carbon	0.5	mg/L		U	0		0.5		

TETRA TECH

SDG #: 0

Folder #: 127351

Project Name: OCONOMOWOC
ELECTROPLATING
Project Number: 117-7413001.01

Matrix Spike Duplicate Water

Analytical Run #:	137915	Analysis Date:	05/18/2017	Prep Batch #:	Matrix:	GROUND WATER
CTLab #:	868916	Analysis Time:	06:36	Prep Date/Time:	Method:	SW9060
Parent Sample #:	868915	Analyst:	AGK	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Organic Carbon	53.3	mg/L	3.2		50.0	100	85 --- 110	2	6

TETRA TECH

SDG #: 0

Folder #: 127351

Project Name: OCONOMOWOC
ELECTROPLATING
Project Number: 117-7413001.01

Matrix Spike Water

Analytical Run #:	137915	Analysis Date:	05/18/2017	Prep Batch #:		Matrix:	GROUND WATER
CTLab #:	868915	Analysis Time:	06:22	Prep Date/Time:		Method:	SW9060
Parent Sample #:	867211	Analyst:	AGK	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Organic Carbon	54.3	mg/L	3.2		50.0	102	85 --- 110		6

TETRA TECH

SDG #: 0

Folder #: 127351

Project Name: OCONOMOWOC
ELECTROPLATING
Project Number: 117-7413001.01

Duplicate

Analytical Run #:	137968	Analysis Date:	05/16/2017	Prep Batch #:	Matrix:	GROUND WATER
CTLab #:	869651	Analysis Time:	22:02	Prep Date/Time:	Method:	SW9056A
Parent Sample #:	867204	Analyst:	AGK	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Chloride	216	mg/L	210					3	20
Total Sulfate	688	mg/L	670					3	20

TETRA TECH

SDG #: 0

Folder #: 127351

Project Name: OCONOMOWOC

ELECTROPLATING

Project Number: 117-7413001.01

Lab Control Spike Water

Analytical Run #:	137968	Analysis Date:	05/16/2017	Prep Batch #:		Matrix:	LIQUID
CTLab #:	869652	Analysis Time:	14:31	Prep Date/Time:		Method:	SW9056A
Parent Sample #:		Analyst:	AGK	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Chloride	16.54	mg/L			15.00	110	80 --- 120		
Sulfate	27.21	mg/L			25.00	109	80 --- 120		

TETRA TECH

SDG #: 0

Folder #: 127351

Project Name: OCONOMOWOC
ELECTROPLATING
Project Number: 117-7413001.01

Method Blank Water

Analytical Run #:	137968	Analysis Date:	05/16/2017	Prep Batch #:		Matrix:	LIQUID
CTLab #:	869650	Analysis Time:	15:13	Prep Date/Time:		Method:	SW9056A
Parent Sample #:		Analyst:	AGK	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Chloride	0.7	mg/L		U	0		0.7		
Sulfate	1.0	mg/L		U	0		1.0		

TETRA TECH

SDG #: 0

Folder #: 127351

Project Name: OCONOMOWOC

ELECTROPLATING

Project Number: 117-7413001.01

Matrix Spike Water

Analytical Run #:	137968	Analysis Date:	05/16/2017	Prep Batch #:	Matrix:	GROUND WATER
CTLab #:	869658	Analysis Time:	22:49	Prep Date/Time:	Method:	SW9056A
Parent Sample #:	867204	Analyst:	AGK	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Chloride	235	mg/L	210		160	16	80 --- 120		20
Total Sulfate	730	mg/L	670		160	38	80 --- 120		20

TETRA TECH

SDG #: 0

Folder #: 127351

Project Name: OCONOMOWOC
ELECTROPLATING
Project Number: 117-7413001.01

Lab Control Spike Water

Analytical Run #:	138142	Analysis Date:	05/22/2017	Prep Batch #:		Matrix:	LIQUID
CTLab #:	870367	Analysis Time:	11:20	Prep Date/Time:		Method:	E310.2
Parent Sample #:		Analyst:	SAW	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Alkalinity	366.0	mg/L			375.0	98	90 --- 110		

TETRA TECH

SDG #: 0

Folder #: 127351

Project Name: OCONOMOWOC
ELECTROPLATING
Project Number: 117-7413001.01

Method Blank Water

Analytical Run #:	138142	Analysis Date:	05/22/2017	Prep Batch #:	Matrix:	LIQUID
CTLab #:	870368	Analysis Time:	11:35	Prep Date/Time:	Method:	E310.2
Parent Sample #:		Analyst:	SAW	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Alkalinity	10	mg/L		U	0		10		

TETRA TECH

SDG #: 0

Folder #: 127351

Project Name: OCONOMOWOC

ELECTROPLATING

Project Number: 117-7413001.01

Matrix Spike Duplicate Water

Analytical Run #:	137941	Analysis Date:	05/16/2017	Prep Batch #:		Matrix:	GROUND WATER
CTLab #:	869101	Analysis Time:	18:17	Prep Date/Time:		Method:	SW6010
Parent Sample #:	869100	Analyst:	DC	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Iron	2.67	mg/L	0.800		2.00	94	75 --- 113	1	18
Manganese	1010	ug/L	123		1000	89	75 --- 121	0	13

TETRA TECH

SDG #: 0

Folder #: 127351

Project Name: OCONOMOWOC
ELECTROPLATING
Project Number: 117-7413001.01

Matrix Spike Water

Analytical Run #:	137941	Analysis Date:	05/16/2017	Prep Batch #:		Matrix:	GROUND WATER
CTLab #:	869100	Analysis Time:	18:10	Prep Date/Time:		Method:	SW6010
Parent Sample #:	867212	Analyst:	DC	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Iron	2.69	mg/L	0.800		2.00	94	75 --- 113		18
Manganese	1010	ug/L	123		1000	89	75 --- 121		13

TETRA TECH

SDG #: 0

Folder #: 127351

Project Name: OCONOMOWOC

ELECTROPLATING

Project Number: 117-7413001.01

Lab Control Spike Water

Analytical Run #:	137997	Analysis Date:	05/17/2017	Prep Batch #:	62408	Matrix:	LIQUID
CTLab #:	868477	Analysis Time:	21:12	Prep Date/Time:	05/17/2017 08:00	Method:	SW6010
Parent Sample #:		Analyst:	NAH	Prep Analyst:	NAH		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Iron	0.4200	mg/L			0.4000	105	80 --- 115		
Manganese	194.0	ug/L			200.0	97	86 --- 112		

TETRA TECH

SDG #: 0

Folder #: 127351

Project Name: OCONOMOWOC
ELECTROPLATING
Project Number: 117-7413001.01

Method Blank Water

Analytical Run #:	137997	Analysis Date:	05/18/2017	Prep Batch #:	62408	Matrix:	LIQUID
CTLab #:	868476	Analysis Time:	22:46	Prep Date/Time:	05/17/2017 08:00	Method:	SW6010
Parent Sample #:		Analyst:	NAH	Prep Analyst:	NAH		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Iron	0.034	mg/L		U	0		0.034		
Manganese	3.4	ug/L		U	0		3.4		

TETRA TECH

SDG #: 0

Folder #: 127351

Project Name: OCONOMOWOC

ELECTROPLATING

Project Number: 117-7413001.01

Matrix Spike Duplicate Water

Analytical Run #:	137997	Analysis Date:	05/17/2017	Prep Batch #:	62408	Matrix:	GROUND WATER
CTLab #:	868479	Analysis Time:	22:32	Prep Date/Time:	05/17/2017 08:00	Method:	SW6010
Parent Sample #:	868478	Analyst:	NAH	Prep Analyst:	NAH		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Iron	6.47	mg/L	6.39		0.400	20	75 --- 118	4	11
Manganese	244	ug/L	57.7		200	93	84 --- 111	2	7

TETRA TECH

SDG #: 0

Folder #: 127351

Project Name: OCONOMOWOC
ELECTROPLATING
Project Number: 117-7413001.01

Matrix Spike Water

Analytical Run #:	137997	Analysis Date:	05/17/2017	Prep Batch #:	62408	Matrix:	GROUND WATER
CTLab #:	868478	Analysis Time:	22:06	Prep Date/Time:	05/17/2017 08:00	Method:	SW6010
Parent Sample #:	867204	Analyst:	NAH	Prep Analyst:	NAH		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Iron	6.75	mg/L	6.39		0.400	90	75 --- 118		
Manganese	250	ug/L	57.7		200	96	84 --- 111		

Lab Control Spike Water

Analytical Run #:	137905	Analysis Date:	05/17/2017	Prep Batch #:	Matrix:	LIQUID
CTLab #:	868558	Analysis Time:	08:41	Prep Date/Time:	Method:	SW8260C
Parent Sample #:		Analyst:	RLD	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	4.30	ug/L			4.00	108	79 --- 122		
1,1,1-Trichloroethane	4.44	ug/L			4.00	111	76 --- 129		
1,1,2,2-Tetrachloroethane	4.23	ug/L			4.00	106	79 --- 119		
1,1,2-Trichloroethane	4.27	ug/L			4.00	107	82 --- 113		
1,1-Dichloroethane	4.25	ug/L			4.00	106	80 --- 119		
1,1-Dichloroethene	4.49	ug/L			4.00	112	75 --- 131		
1,1-Dichloropropene	4.36	ug/L			4.00	109	78 --- 126		
1,2 Dichloroethane-d4	97.0	% Recovery			100	97.0	85 --- 108		
1,2,3-Trichlorobenzene	4.16	ug/L			4.00	104	79 --- 118		
1,2,3-Trichloropropane	4.82	ug/L			4.00	120	67 --- 118		
1,2,4-Trichlorobenzene	4.19	ug/L			4.00	105	82 --- 121		
1,2,4-Trimethylbenzene	4.39	ug/L			4.00	110	80 --- 124		
1,2-Dibromo-3-chloropropane	4.18	ug/L			4.00	104	71 --- 117		
1,2-Dibromoethane	4.27	ug/L			4.00	107	85 --- 115		
1,2-Dichlorobenzene	4.16	ug/L			4.00	104	80 --- 119		
1,2-Dichloroethane	4.12	ug/L			4.00	103	82 --- 113		
1,2-Dichloropropane	4.24	ug/L			4.00	106	84 --- 114		
1,3,5-Trimethylbenzene	4.34	ug/L			4.00	108	83 --- 123		
1,3-Dichlorobenzene	4.27	ug/L			4.00	107	79 --- 122		
1,3-Dichloropropane	4.08	ug/L			4.00	102	84 --- 110		
1,4-Dichlorobenzene	4.21	ug/L			4.00	105	79 --- 121		
1,4-Dioxane	225	ug/L			200	112	70 --- 130		
2,2-Dichloropropane	4.33	ug/L			4.00	108	73 --- 130		
2-Butanone	41.6	ug/L			40.0	104	73 --- 121		
2-Chlorotoluene	4.25	ug/L			4.00	106	82 --- 120		
2-Hexanone	41.8	ug/L			40.0	104	75 --- 121		
4-Chlorotoluene	4.27	ug/L			4.00	107	80 --- 124		
4-Methyl-2-pentanone	41.8	ug/L			40.0	104	73 --- 127		
Acetone	37.0	ug/L			40.0	92	57 --- 123		
Benzene	4.30	ug/L			4.00	108	81 --- 121		
Bromobenzene	4.25	ug/L			4.00	106	80 --- 119		
Bromochloromethane	4.25	ug/L			4.00	106	80 --- 113		
Bromodichloromethane	4.46	ug/L			4.00	112	80 --- 118		
Bromofluorobenzene	100	% Recovery			100	100	91 --- 107		
Bromoform	4.43	ug/L			4.00	111	72 --- 119		
Bromomethane	4.27	ug/L			4.00	107	19 --- 160		
Carbon disulfide	8.80	ug/L			8.00	110	77 --- 128		
Carbon tetrachloride	4.57	ug/L			4.00	114	79 --- 129		
Chlorobenzene	4.27	ug/L			4.00	107	81 --- 117		
Chloroethane	4.14	ug/L			4.00	104	80 --- 130		
Chloroform	4.37	ug/L			4.00	109	78 --- 116		
Chloromethane	3.94	ug/L			4.00	98	73 --- 120		

Lab Control Spike Water

Analytical Run #:	137905	Analysis Date:	05/17/2017	Prep Batch #:	Matrix:	LIQUID
CTLab #:	868558	Analysis Time:	08:41	Prep Date/Time:	Method:	SW8260C
Parent Sample #:		Analyst:	RLD	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
cis-1,2-Dichloroethene	4.21	ug/L			4.00	105	80 --- 120		
cis-1,3-Dichloropropene	4.38	ug/L			4.00	110	81 --- 118		
d8-Toluene	102	% Recovery			100	102	95 --- 103		
Dibromochloromethane	4.19	ug/L			4.00	105	81 --- 115		
Dibromofluoromethane	101	% Recovery			100	101	92 --- 106		
Dibromomethane	4.12	ug/L			4.00	103	79 --- 118		
Dichlorodifluoromethane	4.34	ug/L			4.00	108	80 --- 125		
Diisopropyl ether	4.28	ug/L			4.00	107	81 --- 120		
Ethylbenzene	4.40	ug/L			4.00	110	81 --- 124		
Hexachlorobutadiene	3.92	ug/L			4.00	98	71 --- 131		
Isopropylbenzene	4.41	ug/L			4.00	110	80 --- 127		
m & p-Xylene	8.73	ug/L			8.00	109	81 --- 123		
Methyl tert-butyl ether	4.18	ug/L			4.00	104	80 --- 116		
Methylene chloride	4.26	ug/L			4.00	106	79 --- 125		
n-Butylbenzene	4.11	ug/L			4.00	103	81 --- 124		
n-Propylbenzene	4.41	ug/L			4.00	110	81 --- 127		
Naphthalene	4.12	ug/L			4.00	103	64 --- 126		
o-Xylene	4.36	ug/L			4.00	109	81 --- 122		
p-Isopropyltoluene	4.32	ug/L			4.00	108	84 --- 124		
sec-Butylbenzene	4.33	ug/L			4.00	108	84 --- 125		
Styrene	4.35	ug/L			4.00	109	82 --- 122		
tert-Butylbenzene	4.33	ug/L			4.00	108	82 --- 123		
Tetrachloroethene	4.31	ug/L			4.00	108	80 --- 124		
Tetrahydrofuran	38.5	ug/L			40.0	96	66 --- 128		
Toluene	4.26	ug/L			4.00	106	80 --- 119		
trans-1,2-Dichloroethene	4.26	ug/L			4.00	106	77 --- 125		
trans-1,3-Dichloropropene	4.06	ug/L			4.00	102	79 --- 119		
Trichloroethene	4.32	ug/L			4.00	108	78 --- 122		
Trichlorofluoromethane	4.47	ug/L			4.00	112	78 --- 129		
Vinyl acetate	41.0	ug/L			40.0	102	78 --- 126		
Vinyl chloride	4.27	ug/L			4.00	107	79 --- 127		

Method Blank Water

Analytical Run #:	137905	Analysis Date:	05/17/2017	Prep Batch #:	Matrix:	LIQUID
CTLab #:	868583	Analysis Time:	09:38	Prep Date/Time:	Method:	SW8260C
Parent Sample #:		Analyst:	RLD	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	0.04	ug/L		U	0		0.04		
1,1,1-Trichloroethane	0.05	ug/L		U	0		0.05		
1,1,2,2-Tetrachloroethane	0.017	ug/L		U	0		0.017		
1,1,2-Trichloroethane	0.05	ug/L		U	0		0.05		
1,1-Dichloroethane	0.06	ug/L		U	0		0.06		
1,1-Dichloroethene	0.06	ug/L		U	0		0.06		
1,1-Dichloropropene	0.06	ug/L		U	0		0.06		
1,2 Dichloroethane-d4	100	% Recovery			100	100	68 --- 120		
1,2,3-Trichlorobenzene	0.04	ug/L		U	0		0.04		
1,2,3-Trichloropropane	0.04	ug/L		U	0		0.04		
1,2,4-Trichlorobenzene	0.04	ug/L		U	0		0.04		
1,2,4-Trimethylbenzene	0.04	ug/L		U	0		0.04		
1,2-Dibromo-3-chloropropane	0.09	ug/L		U	0		0.09		
1,2-Dibromoethane	0.07	ug/L		U	0		0.07		
1,2-Dichlorobenzene	0.04	ug/L		U	0		0.04		
1,2-Dichloroethane	0.05	ug/L		U	0		0.05		
1,2-Dichloropropane	0.07	ug/L		U	0		0.07		
1,3,5-Trimethylbenzene	0.05	ug/L		U	0		0.05		
1,3-Dichlorobenzene	0.04	ug/L		U	0		0.04		
1,3-Dichloropropane	0.04	ug/L		U	0		0.04		
1,4-Dichlorobenzene	0.04	ug/L		U	0		0.04		
1,4-Dioxane	7	ug/L		U	0		7		
2,2-Dichloropropane	0.05	ug/L		U	0		0.05		
2-Butanone	0.5	ug/L		U	0		0.5		
2-Chlorotoluene	0.03	ug/L		U	0		0.03		
2-Hexanone	0.24	ug/L		U	0		0.24		
4-Chlorotoluene	0.04	ug/L		U	0		0.04		
4-Methyl-2-pentanone	0.24	ug/L		U	0		0.24		
Acetone	0.929	ug/L			0		0.30		
Benzene	0.018	ug/L		U	0		0.018		
Bromobenzene	0.04	ug/L		U	0		0.04		
Bromochloromethane	0.030	ug/L		U	0		0.030		
Bromodichloromethane	0.016	ug/L		U	0		0.016		
Bromofluorobenzene	98.0	% Recovery			100	98.0	68 --- 120		
Bromoform	0.04	ug/L		U	0		0.04		
Bromomethane	0.08	ug/L		U	0		0.08		
Carbon disulfide	0.07	ug/L		U	0		0.07		
Carbon tetrachloride	0.05	ug/L		U	0		0.05		
Chlorobenzene	0.04	ug/L		U	0		0.04		
Chloroethane	0.07	ug/L		U	0		0.07		
Chloroform	0.03	ug/L		U	0		0.03		
Chloromethane	0.04	ug/L		U	0		0.04		

Method Blank Water

Analytical Run #:	137905	Analysis Date:	05/17/2017	Prep Batch #:	Matrix:	LIQUID
CTLab #:	868583	Analysis Time:	09:38	Prep Date/Time:	Method:	SW8260C
Parent Sample #:		Analyst:	RLD	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
cis-1,2-Dichloroethene	0.07	ug/L		U	0		0.07		
cis-1,3-Dichloropropene	0.011	ug/L		U	0		0.011		
d8-Toluene	101	% Recovery			100	101	71 --- 117		
Dibromochloromethane	0.03	ug/L		U	0		0.03		
Dibromofluoromethane	100	% Recovery			100	100	67 --- 122		
Dibromomethane	0.05	ug/L		U	0		0.05		
Dichlorodifluoromethane	0.06	ug/L		U	0		0.06		
Diisopropyl ether	0.04	ug/L		U	0		0.04		
Ethylbenzene	0.04	ug/L		U	0		0.04		
Hexachlorobutadiene	0.05	ug/L		U	0		0.05		
Isopropylbenzene	0.04	ug/L		U	0		0.04		
m & p-Xylene	0.07	ug/L		U	0		0.07		
Methyl tert-butyl ether	0.04	ug/L		U	0		0.04		
Methylene chloride	0.05	ug/L		U	0		0.05		
n-Butylbenzene	0.03	ug/L		U	0		0.03		
n-Propylbenzene	0.04	ug/L		U	0		0.04		
Naphthalene	0.0413	ug/L			0		0.03		
o-Xylene	0.04	ug/L		U	0		0.04		
p-Isopropyltoluene	0.04	ug/L		U	0		0.04		
sec-Butylbenzene	0.05	ug/L		U	0		0.05		
Styrene	0.03	ug/L		U	0		0.03		
tert-Butylbenzene	0.04	ug/L		U	0		0.04		
Tetrachloroethene	0.05	ug/L		U	0		0.05		
Tetrahydrofuran	0.4	ug/L		U	0		0.4		
Toluene	0.04	ug/L		U	0		0.04		
trans-1,2-Dichloroethene	0.04	ug/L		U	0		0.04		
trans-1,3-Dichloropropene	0.019	ug/L		U	0		0.019		
Trichloroethene	0.05	ug/L		U	0		0.05		
Trichlorofluoromethane	0.09	ug/L		U	0		0.09		
Vinyl acetate	0.22	ug/L		U	0		0.22		
Vinyl chloride	0.019	ug/L		U	0		0.019		

Matrix Spike Duplicate Water

Analytical Run #:	137905	Analysis Date:	05/17/2017	Prep Batch #:	Matrix:	GROUND WATER
CTLab #:	868820	Analysis Time:	23:02	Prep Date/Time:	Method:	SW8260C
Parent Sample #:	868819	Analyst:	RLD	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	434	ug/L	BDL		400	108	68 --- 120	3	21
1,1,1-Trichloroethane	483	ug/L	BDL		400	121	78 --- 120	5	20
1,1,2,2-Tetrachloroethane	423	ug/L	BDL		400	106	57 --- 130	4	22
1,1,2-Trichloroethane	419	ug/L	BDL		400	105	67 --- 112	2	25
1,1-Dichloroethane	442	ug/L	BDL		400	110	66 --- 121	3	25
1,1-Dichloroethene	468	ug/L	BDL		400	117	77 --- 123	0	24
1,1-Dichloropropene	466	ug/L	BDL		400	116	77 --- 122	4	21
1,2 Dichloroethane-d4	97.0	% Recovery			100	97.0	85 --- 107		7
1,2,3-Trichlorobenzene	416	ug/L	BDL		400	104	64 --- 122	3	31
1,2,3-Trichloropropane	380	ug/L	BDL		400	95	38 --- 129	4	26
1,2,4-Trichlorobenzene	430	ug/L	BDL		400	108	67 --- 126	3	29
1,2,4-Trimethylbenzene	446	ug/L	BDL		400	112	72 --- 125	2	36
1,2-Dibromo-3-chloropropane	414	ug/L	BDL		400	104	44 --- 129	3	34
1,2-Dibromoethane	419	ug/L	BDL		400	105	69 --- 111	0	22
1,2-Dichlorobenzene	430	ug/L	BDL		400	108	69 --- 119	5	23
1,2-Dichloroethane	419	ug/L	BDL		400	105	68 --- 113	3	21
1,2-Dichloropropane	433	ug/L	BDL		400	108	70 --- 116	1	19
1,3,5-Trimethylbenzene	443	ug/L	BDL		400	111	75 --- 125	3	34
1,3-Dichlorobenzene	442	ug/L	BDL		400	110	73 --- 119	3	22
1,3-Dichloropropane	413	ug/L	BDL		400	103	66 --- 113	0	23
1,4-Dichlorobenzene	437	ug/L	BDL		400	109	71 --- 119	3	22
1,4-Dioxane	27000	ug/L	BDL		20000	135	70 --- 130	1	20
2,2-Dichloropropane	449	ug/L	BDL		400	112	72 --- 120	5	21
2-Butanone	4160	ug/L	110		4000	101	51 --- 122	1	29
2-Chlorotoluene	436	ug/L	BDL		400	109	73 --- 123	4	20
2-Hexanone	4150	ug/L	BDL		4000	104	47 --- 136	1	28
4-Chlorotoluene	437	ug/L	BDL		400	109	73 --- 124	3	22
4-Methyl-2-pentanone	4310	ug/L	BDL		4000	108	52 --- 135	2	29
Acetone	3540	ug/L	100		4000	86	13 --- 131	2	39
Benzene	443	ug/L	BDL		400	111	76 --- 117	3	17
Bromobenzene	416	ug/L	BDL		400	104	68 --- 118	2	20
Bromochloromethane	422	ug/L	BDL		400	106	67 --- 110	0	22
Bromodichloromethane	442	ug/L	BDL		400	110	68 --- 115	0	20
Bromofluorobenzene	96.0	% Recovery			100	96.0	82 --- 117		7
Bromoform	428	ug/L	BDL		400	107	48 --- 120	3	28
Bromomethane	362	ug/L	BDL		400	90	52 --- 147	1	34
Carbon disulfide	942	ug/L	BDL		800	118	78 --- 126	2	31
Carbon tetrachloride	500	ug/L	BDL		400	125	78 --- 128	3	20
Chlorobenzene	429	ug/L	BDL		400	107	72 --- 116	3	21
Chloroethane	428	ug/L	BDL		400	107	63 --- 144	2	26
Chloroform	446	ug/L	BDL		400	112	71 --- 111	3	18
Chloromethane	396	ug/L	BDL		400	99	52 --- 141	1	21

Matrix Spike Duplicate Water

Analytical Run #:	137905	Analysis Date:	05/17/2017	Prep Batch #:	Matrix:	GROUND WATER
CTLab #:	868820	Analysis Time:	23:02	Prep Date/Time:	Method:	SW8260C
Parent Sample #:	868819	Analyst:	RLD	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
cis-1,2-Dichloroethene	1270	ug/L	870		400	100	66 --- 120	1	21
cis-1,3-Dichloropropene	438	ug/L	BDL		400	110	66 --- 114	1	21
d8-Toluene	101	% Recovery			100	101	95 --- 102		7
Dibromochloromethane	413	ug/L	BDL		400	103	62 --- 116	3	23
Dibromofluoromethane	99.0	% Recovery			100	99.0	90 --- 108		7
Dibromomethane	409	ug/L	BDL		400	102	66 --- 112	0	21
Dichlorodifluoromethane	472	ug/L	BDL		400	118	75 --- 142	4	22
Diisopropyl ether	451	ug/L	BDL		400	113	69 --- 123	1	27
Ethylbenzene	459	ug/L	BDL		400	115	78 --- 120	3	24
Hexachlorobutadiene	442	ug/L	BDL		400	110	69 --- 133	4	30
Isopropylbenzene	470	ug/L	BDL		400	118	77 --- 123	4	24
m & p-Xylene	915	ug/L	BDL		800	114	76 --- 119	4	28
Methyl tert-butyl ether	431	ug/L	BDL		400	108	64 --- 113	1	33
Methylene chloride	588	ug/L	61		400	132	69 --- 112	0	36
n-Butylbenzene	448	ug/L	BDL		400	112	77 --- 131	4	24
n-Propylbenzene	462	ug/L	BDL		400	116	77 --- 128	3	23
Naphthalene	401	ug/L	BDL		400	100	58 --- 120	1	31
o-Xylene	450	ug/L	BDL		400	112	73 --- 118	4	26
p-Isopropyltoluene	461	ug/L	BDL		400	115	77 --- 128	2	27
sec-Butylbenzene	463	ug/L	BDL		400	116	76 --- 131	4	23
Styrene	443	ug/L	BDL		400	111	72 --- 120	2	40
tert-Butylbenzene	454	ug/L	BDL		400	114	75 --- 126	3	22
Tetrachloroethene	469	ug/L	BDL		400	117	74 --- 121	3	21
Tetrahydrofuran	3960	ug/L	69		4000	97	49 --- 125	2	28
Toluene	443	ug/L	BDL		400	111	74 --- 115	1	19
trans-1,2-Dichloroethene	479	ug/L	41		400	110	76 --- 118	4	28
trans-1,3-Dichloropropene	404	ug/L	BDL		400	101	61 --- 115	0	21
Trichloroethene	445	ug/L	BDL		400	111	75 --- 114	3	19
Trichlorofluoromethane	487	ug/L	BDL		400	122	79 --- 128	5	23
Vinyl acetate	4420	ug/L	180		4000	106	60 --- 131	1	25
Vinyl chloride	478	ug/L	28		400	112	70 --- 140	4	21

Matrix Spike Water

Analytical Run #:	137905	Analysis Date:	05/17/2017	Prep Batch #:	Matrix:	GROUND WATER
CTLab #:	868819	Analysis Time:	22:34	Prep Date/Time:	Method:	SW8260C
Parent Sample #:	867204	Analyst:	RLD	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	419	ug/L	BDL		400	105	68 --- 120		21
1,1,1-Trichloroethane	461	ug/L	BDL		400	115	78 --- 120		20
1,1,2,2-Tetrachloroethane	407	ug/L	BDL		400	102	57 --- 130		22
1,1,2-Trichloroethane	428	ug/L	BDL		400	107	67 --- 112		25
1,1-Dichloroethane	431	ug/L	BDL		400	108	66 --- 121		25
1,1-Dichloroethene	467	ug/L	BDL		400	117	77 --- 123		24
1,1-Dichloropropene	448	ug/L	BDL		400	112	77 --- 122		21
1,2 Dichloroethane-d4	96.0	% Recovery			100	96.0	85 --- 107		7
1,2,3-Trichlorobenzene	404	ug/L	BDL		400	101	64 --- 122		31
1,2,3-Trichloropropane	393	ug/L	BDL		400	98	38 --- 129		26
1,2,4-Trichlorobenzene	417	ug/L	BDL		400	104	67 --- 126		29
1,2,4-Trimethylbenzene	439	ug/L	BDL		400	110	72 --- 125		36
1,2-Dibromo-3-chloropropane	401	ug/L	BDL		400	100	44 --- 129		34
1,2-Dibromoethane	418	ug/L	BDL		400	104	69 --- 111		22
1,2-Dichlorobenzene	410	ug/L	BDL		400	102	69 --- 119		23
1,2-Dichloroethane	431	ug/L	BDL		400	108	68 --- 113		21
1,2-Dichloropropane	428	ug/L	BDL		400	107	70 --- 116		19
1,3,5-Trimethylbenzene	430	ug/L	BDL		400	108	75 --- 125		34
1,3-Dichlorobenzene	430	ug/L	BDL		400	108	73 --- 119		22
1,3-Dichloropropane	412	ug/L	BDL		400	103	66 --- 113		23
1,4-Dichlorobenzene	424	ug/L	BDL		400	106	71 --- 119		22
1,4-Dioxane	27300	ug/L	BDL		20000	136	70 --- 130		20
2,2-Dichloropropane	428	ug/L	BDL		400	107	72 --- 120		21
2-Butanone	4110	ug/L	110		4000	100	51 --- 122		29
2-Chlorotoluene	419	ug/L	BDL		400	105	73 --- 123		20
2-Hexanone	4110	ug/L	BDL		4000	103	47 --- 136		28
4-Chlorotoluene	423	ug/L	BDL		400	106	73 --- 124		22
4-Methyl-2-pentanone	4240	ug/L	BDL		4000	106	52 --- 135		29
Acetone	3470	ug/L	100		4000	84	13 --- 131		39
Benzene	431	ug/L	BDL		400	108	76 --- 117		17
Bromobenzene	407	ug/L	BDL		400	102	68 --- 118		20
Bromochloromethane	421	ug/L	BDL		400	105	67 --- 110		22
Bromodichloromethane	440	ug/L	BDL		400	110	68 --- 115		20
Bromofluorobenzene	97.0	% Recovery			100	97.0	82 --- 117		7
Bromoform	414	ug/L	BDL		400	104	48 --- 120		28
Bromomethane	367	ug/L	BDL		400	92	52 --- 147		34
Carbon disulfide	922	ug/L	BDL		800	115	78 --- 126		31
Carbon tetrachloride	485	ug/L	BDL		400	121	78 --- 128		20
Chlorobenzene	418	ug/L	BDL		400	104	72 --- 116		21
Chloroethane	419	ug/L	BDL		400	105	63 --- 144		26
Chloroform	432	ug/L	BDL		400	108	71 --- 111		18
Chloromethane	393	ug/L	BDL		400	98	52 --- 141		21

Matrix Spike Water

Analytical Run #:	137905	Analysis Date:	05/17/2017	Prep Batch #:	Matrix:	GROUND WATER
CTLab #:	868819	Analysis Time:	22:34	Prep Date/Time:	Method:	SW8260C
Parent Sample #:	867204	Analyst:	RLD	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
cis-1,2-Dichloroethene	1260	ug/L	870		400	98	66 --- 120		21
cis-1,3-Dichloropropene	432	ug/L	BDL		400	108	66 --- 114		21
d8-Toluene	102	% Recovery			100	102	95 --- 102		7
Dibromochloromethane	402	ug/L	BDL		400	100	62 --- 116		23
Dibromofluoromethane	100	% Recovery			100	100	90 --- 108		7
Dibromomethane	409	ug/L	BDL		400	102	66 --- 112		21
Dichlorodifluoromethane	452	ug/L	BDL		400	113	75 --- 142		22
Diisopropyl ether	445	ug/L	BDL		400	111	69 --- 123		27
Ethylbenzene	445	ug/L	BDL		400	111	78 --- 120		24
Hexachlorobutadiene	426	ug/L	BDL		400	106	69 --- 133		30
Isopropylbenzene	452	ug/L	BDL		400	113	77 --- 123		24
m & p-Xylene	882	ug/L	BDL		800	110	76 --- 119		28
Methyl tert-butyl ether	425	ug/L	BDL		400	106	64 --- 113		33
Methylene chloride	589	ug/L	61		400	132	69 --- 112		36
n-Butylbenzene	432	ug/L	BDL		400	108	77 --- 131		24
n-Propylbenzene	447	ug/L	BDL		400	112	77 --- 128		23
Naphthalene	396	ug/L	BDL		400	99	58 --- 120		31
o-Xylene	432	ug/L	BDL		400	108	73 --- 118		26
p-Isopropyltoluene	450	ug/L	BDL		400	112	77 --- 128		27
sec-Butylbenzene	447	ug/L	BDL		400	112	76 --- 131		23
Styrene	436	ug/L	BDL		400	109	72 --- 120		40
tert-Butylbenzene	441	ug/L	BDL		400	110	75 --- 126		22
Tetrachloroethene	456	ug/L	BDL		400	114	74 --- 121		21
Tetrahydrofuran	3880	ug/L	69		4000	95	49 --- 125		28
Toluene	438	ug/L	BDL		400	110	74 --- 115		19
trans-1,2-Dichloroethene	462	ug/L	41		400	105	76 --- 118		28
trans-1,3-Dichloropropene	402	ug/L	BDL		400	100	61 --- 115		21
Trichloroethene	434	ug/L	BDL		400	108	75 --- 114		19
Trichlorofluoromethane	462	ug/L	BDL		400	116	79 --- 128		23
Vinyl acetate	4370	ug/L	180		4000	105	60 --- 131		25
Vinyl chloride	461	ug/L	28		400	108	70 --- 140		21

TETRA TECH

SDG #: 0

Folder #: 127351

Project Name: OCONOMOWOC

ELECTROPLATING

Project Number: 117-7413001.01

Lab Control Spike Water

Analytical Run #:	138062	Analysis Date:	05/18/2017	Prep Batch #:	62450	Matrix:	LIQUID
CTLab #:	869504	Analysis Time:	12:26	Prep Date/Time:	05/18/2017 10:46	Method:	RSK175
Parent Sample #:		Analyst:	AGK	Prep Analyst:	AGK		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Acetylene	2.30	ug/L			3.07	75	70 --- 130		20
Ethane	3.99	ug/L			4.78	83	66 --- 129		20
Ethene	5.56	ug/L			6.80	82	68 --- 128		20
Methane	2.07	ug/L			2.30	90	71 --- 126		20

TETRA TECH

SDG #: 0

Folder #: 127351

Project Name: OCONOMOWOC
ELECTROPLATING
Project Number: 117-7413001.01

Method Blank Water

Analytical Run #:	138062	Analysis Date:	05/18/2017	Prep Batch #:	62450	Matrix:	LIQUID
CTLab #:	869503	Analysis Time:	12:38	Prep Date/Time:	05/18/2017 10:46	Method:	RSK175
Parent Sample #:		Analyst:	AGK	Prep Analyst:	AGK		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Acetylene	0.23	ug/L		U	0		0.23		
Ethane	0.4	ug/L		U	0		0.4		
Ethene	0.5	ug/L		U	0		0.5		
Methane	0.4	ug/L		U	0		0.4		

Sample Condition Report

Folder #: 127351	Print Date / Time: 05/15/2017 10:19
Client: TETRA TECH	Received Date / Time / By: 05/13/2017 13:30 DRT
Project Name: OCONOMOWOC ELECTROPLATING	Log-In Date / Time / By: 05/15/2017 10:20 DRT
Project Phase: OCONOMOWOC, WI	Project #: 117-7413001.01 PM: BMS
Coolers: 5878	Temperature: 3.2C On Ice: Y
Custody Seals Present : N	COC Present?: Y Complete? Y
Seal Intact? N	Numbers: NOT PRESENT
Ship Method: FEDEX	Tracking Number: 786553378258
Adequate Packaging: Y	Temp Blank Enclosed? Y

Notes: THE SAMPLES WERE RECEIVED IN GOOD CONDITION ON ICE.

NO CUSTODY SEALS WERE PRESENT UPON RECEIPT - TAPE WAS INTACT.

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
867204 MW-16S	UNPRES PL	1	/	ALK,Anions
	Total # of Containers of Type		(UNPRES PL) = 1	
867204 MW-16S	VOA HCL	1	/	GAS
	VOA HCL	1	/	GAS
	VOA HCL	1	/	GAS
	Total # of Containers of Type		(VOA HCL) = 3	
867204 MW-16S	HNO3	1	Y /	ICP
	Total # of Containers of Type		(HNO3) = 1	
867204 MW-16S	H2SO4 PL	1	Y /	TOC
	Total # of Containers of Type		(H2SO4 PL) = 1	
867204 MW-16S	VOA HCL	1	/	VOC
	VOA HCL	1	/	VOC
	VOA HCL	1	/	VOC
	Total # of Containers of Type		(VOA HCL) = 3	
Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
867206 MW-16S	HNO3	1	Y /	ICP
	Total # of Containers of Type		(HNO3) = 1	

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
867207 MW-3D	UNPRES PL	1	/	ALK,Anions
	Total # of Containers of Type		(UNPRES PL) = 1	
867207 MW-3D	VOA HCL	1	/	GAS
	VOA HCL	1	/	GAS
	VOA HCL	1	/	GAS
	Total # of Containers of Type		(VOA HCL) = 3	
867207 MW-3D	HNO3	1	Y /	ICP
	Total # of Containers of Type		(HNO3) = 1	
867207 MW-3D	H2SO4 PL	1	Y /	TOC
	Total # of Containers of Type		(H2SO4 PL) = 1	
867207 MW-3D	VOA HCL	1	/	VOC
	VOA HCL	1	/	VOC
	VOA HCL	1	/	VOC
	Total # of Containers of Type		(VOA HCL) = 3	
Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
867208 MW-3D	HNO3	1	Y /	ICP
	Total # of Containers of Type		(HNO3) = 1	
Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
867209 MW-5D	UNPRES PL	1	/	ALK,Anions
	Total # of Containers of Type		(UNPRES PL) = 1	
867209 MW-5D	VOA HCL	1	/	GAS
	VOA HCL	1	/	GAS
	VOA HCL	1	/	GAS
	Total # of Containers of Type		(VOA HCL) = 3	
867209 MW-5D	HNO3	1	Y /	ICP
	Total # of Containers of Type		(HNO3) = 1	
867209 MW-5D	H2SO4 PL	1	Y /	TOC
	Total # of Containers of Type		(H2SO4 PL) = 1	

867209 MW-5D

VOA HCL 1 / VOC
 VOA HCL 1 / VOC
 VOA HCL 1 / VOC
Total # of Containers of Type (VOA HCL) = 3

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
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867210 MW-5D

HNO3 1 Y / ICP
Total # of Containers of Type (HNO3) = 1

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
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867211 MW-9S

UNPRES PL 1 / ALK,Anions
Total # of Containers of Type (UNPRES PL) = 1

867211 MW-9S

VOA HCL 1 / GAS
 VOA HCL 1 / GAS
 VOA HCL 1 / GAS
Total # of Containers of Type (VOA HCL) = 3

867211 MW-9S

HNO3 1 Y / ICP
Total # of Containers of Type (HNO3) = 1

867211 MW-9S

H2SO4 PL 1 Y / TOC
Total # of Containers of Type (H2SO4 PL) = 1

867211 MW-9S

VOA HCL 1 / VOC
 VOA HCL 1 / VOC
 VOA HCL 1 / VOC
Total # of Containers of Type (VOA HCL) = 3

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
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867212 MW-9S

HNO3 1 Y / ICP
Total # of Containers of Type (HNO3) = 1

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
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867223 FILTER BLANK

VOA HCL 1 / VOC
 VOA HCL 1 / VOC
 VOA HCL 1 / VOC
Total # of Containers of Type (VOA HCL) = 3

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
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867229 TB-4

Trip Blank	1	/	VOC
TRIP BLANK	1	/	VOC
Total # of Containers of Type		(TRIP BLANK) = 2	

<u>Condition Code</u>	<u>Condition Description</u>
1	Sample Received OK

Company: **Tetra Tech**
 Project Contact: **Mark Mantney**
 Telephone: **262 792 1282**
 Project Name: **Oconomowoc Electroplatin**
 Project #: **117-7413001.01**
 Location: **Oconomowoc**
 Sampled by: **Ashley Kowaluk**

CT LABORATORIES
 Folder #: **127351**
 Company: **TETRA TECH**
 Project: **OCONOMOWOC ELEC**
 Logged By: **DRT PMF BAI**

1230 Lange Court, Baraboo, WI 53913
 608-356-2760 Fax 608-356-2766
 www.ctlaboratories.com
 Program:
 QSM **RCRA** SDWA NPDES
 Solid Waste Other _____
 PO # _____

Report To:
 EMAIL: **Mark.Mantney@tetratech.com**
 Company: **Tetra Tech**
 Address: **175 N Corporate Dr #100 Brookfield WI 53045**
 Invoice To: *
 EMAIL:
 Company:
 Address:

*Party listed is responsible for payment of invoice as per CT Laboratories' terms and conditions

Client Special Instructions
*** Field filtered**
*** "FF" on sample containers**

Filtered? Y/N	ANALYSES REQUESTED										Total # Containers	Designated MS/MSD
	TDC	ICP Dissolved*	ICP Total	alk/ chloride/sulfate	FSK-175, methanol, etha. dis. acetate	VOCs 8246LL						

Turnaround Time
 Normal RUSH*
 Date Needed: _____
 Rush analysis requires prior CT Laboratories' approval
 Surcharges:
 24 hr 200%
 2-3 days 100%
 4-9 days 50%

Matrix:
 GW - groundwater SW - surface water WW - wastewater DW - drinking water
 S - soil/sediment SL - sludge A - air M - misc/waste

Collection		Matr	Grab/Comp	Sample #	Sample ID Description	Fill in Spaces with Bottles per Test										CT Lab ID # Lab use only
Date	Time															
5-12	1115	GW	grab	1	MW-11es	1	1	1	1	3	3					867204 / 867206
	1205			2	MW-3D	1	1	1	1	3	3					867207 / 867208
	1250			3	MW-5D	1	1	1	1	3	3					867209 / 867210
	1345			4	MW-9S	1	1	1	1	3	3					867211 / 867212
	1420			5	Filter Blank						3					867223
		DI			TB-4						2					867229

Relinquished By: **Ashley Kowaluk**
 Received by: _____

Date/Time: **5-12-17 1615**
 Date/Time: _____

Received By: _____
 Received for Laboratory by: _____

Date/Time: **5/13/17 1330**
 Date/Time: **5/15/17 1017**

Lab Use Only
 Ice Present **Yes** No
 Temperature **32**
 Cooler # **5878**

CT Laboratories Terms and Conditions

Where a purchaser (Client) places an order for laboratory, consulting or sampling services from CT Laboratories (CTL), CTL shall provide the ordered services pursuant to these Terms and Conditions, and the related Quotation, or as agreed in a negotiated contract. In the absence of a written agreement to the contrary, the Order constitutes an acceptance by the Client of CTL's offer to do business under these Terms and Conditions, and an agreement to be bound by these Terms and Conditions. No contrary or additional terms and conditions expressed in a Client's document shall be deemed to become a part of the contract created upon acceptance of these Terms and Conditions, unless accepted by CTL in advance of the start of the project and in writing.

1. ORDERS AND RECEIPT OF SAMPLES (Sample Acceptance Policy)

- 1.1 The Client may place the Order (i.e., specify a Scope of Work) either by submitting a purchase order to CTL in writing, by telephone (confirmed in writing) or by negotiated contract. Whichever option the Client selects for placing the Order, the Order shall not be valid unless it contains sufficient specification to enable CTL to carry out the Client's requirements. It is the policy of CT Laboratories that samples not meeting the acceptance criteria, outlined in the NELAC standards and Section 5.8.3.2 of the DOD QSM, will not be accepted by the laboratory or will be qualified on the final report. All samples submitted to the laboratory must: (1) be accompanied by proper, full and complete documentation, including sample identification, location, date and time of collection, the collector's name, type of preservation (if any), type of sample, any special comments concerning the sample and any additional pertinent fields on the chain-of-custody. In the absence of any of the required information, the laboratory will attempt to contact the client to obtain the information; if unable to obtain the necessary information, the final report will be qualified. (2) be labeled appropriately with a unique sample identification written with indelible ink on water resistant labels. If the laboratory cannot determine the identity of a sample, it will be rejected and the client will be contacted for further instructions or resampling. (3) be in an appropriate sample container. If the container is inappropriate, the client will be contacted for further instructions or resampling. If analysis is possible, the final report will be qualified. CT Laboratories can provide a sampling guide containing approved containers and preservations for analytical methods requested. (4) adhere to specified holding times. If samples are received with less than 1/2 the holding time remaining for the requested test, CT Laboratories will make its best effort to analyze the samples and notify the client. If holding times are exceeded, the final report will be qualified. (5) contain adequate sample volume to perform the necessary testing. If sufficient volume is not present, the sample will be rejected and the client will be contacted for further instructions or resampling. If samples show signs of damage, contamination or inadequate preservation, the client will be notified. If analysis can be performed, the final report will be qualified. If not, the samples will be rejected and the client notified for further instructions or resampling.
- 1.2 CT Laboratories must be supplied with complete written disclosure of the known or suspected presence of any hazardous substances, as defined by applicable federal or state law. Where any samples which were not accompanied by the required disclosure, cause interruptions in the lab's ability to process work due to contamination of instruments or work areas, the Client will be responsible for the costs of clean up and recovery.
- 1.3 Prior to Sample Acceptance, the entire risk of loss or damage to samples remains with the Client. In no event will CTL have any responsibility or liability for the action or inaction of any carrier shipping or delivering any sample to or from CTL's premises. Client is responsible to assure that any sample containing any hazardous substance which is to be delivered to CTL's premises will be packaged, labeled, transported and delivered properly and in accordance with applicable laws.

2. PAYMENT TERMS

2.1 Services performed by CTL will be in accordance with prices quoted and later confirmed in writing or as stated in the Price Schedule. Invoices may be submitted to Client upon completion of any sample delivery group. Payment in advance is required for all Clients except those whose credit has been established with CTL. For Clients with approved credit, payment terms are net 30 days from the date of invoice by CTL. All overdue payments are subject to an additional interest and service charge of one and one-half percent (1.5%) (or the maximum rate permissible by law, whichever is lesser) per month or portion thereof from the due date until the date of payment. All fees are charged or billed directly to the Client. The billing of a third party will not be accepted without a statement, signed by the third party that acknowledges and accepts payment responsibility. CTL may suspend work and withhold delivery of data under this order at any time in the event Client fails to make timely payment of its invoices. Client shall be responsible for all costs and expenses of collection including reasonable attorney's fees. CTL reserves the right to refuse to proceed with work at any time based upon an unfavorable Client credit report.

3. CHANGE ORDERS, TERMINATION

- 3.1 Changes to the Scope of Work, price, or result delivery date may be initiated by CTL after Sample Acceptance due to any condition which conflicts with analytical, QA or other protocols warranted in these Terms and Conditions. CTL will not proceed with such changes until an agreement with the Client is reached on the amount of any cost, schedule change or technical change to the Scope of Work, and such agreement is documented in writing.
- 3.2 Changes to the Scope of Work, including but not limited to increasing or decreasing the work, changing test and analysis specification or acceleration in the performance of the work may be initiated by the Client after sample acceptance. Such a change will be documented in writing and may result in a change in cost and turnaround time commitment. CTL's acceptance of such changes is contingent upon technical feasibility and operational capacity.
- 3.3 Suspension or termination of all or any part of the work may be initiated by the Client. CTL will be compensated consistent with Section 2 of these Terms and Conditions. CTL will complete all work in progress and be paid in full for all work completed.

4. WARRANTIES AND LIABILITY

- 4.1 Where applicable, CTL will use analytical methodologies which are in substantial conformity with published test methods. CTL has implemented these methods in its Laboratory Quality Manuals and referenced Standard Operating Procedures and where the nature or composition of the sample requires it, CTL reserves the right to deviate from these methodologies as necessary or appropriate, based on the reasonable judgment of CTL, which deviations, if any, will be made on a basis consistent with recognized standards of the industry and/or CTL's Laboratory Quality Manuals. Client may request that CTL perform according to a mutually agreed Quality Assurance Project Plan (QAPP). In the event that samples arrive prior to agreement on a QAPP, CTL will proceed with analyses under its standard Quality Manuals then in effect, and CTL will not be responsible for any resampling or other charges if work must be repeated to comply with a subsequently finalized QAPP.
- 4.2 CTL shall start preparation and/or analysis within holding times provided that Sample Acceptance occurs within 48 hours of sampling or 1/2 of the holding time for the test, whichever is less. Where resolution of inconsistencies leading to Sample Acceptance does not occur within this period, CTL will use its best efforts to meet holding times and will proceed with the work provided that, in CTL's judgment, the chain-of-custody or definition of the Scope of Work provide sufficient guidance. Reanalysis of samples to comply with CTL's Quality Manuals will be deemed to have met holding times provided the initial analysis was performed within the applicable holding time. Where reanalysis demonstrates that sample matrix interference is the cause of failure to meet any Quality Manual requirements, the warranty will be deemed to have been met.
- 4.3 CTL warrants that it possesses and maintains all licenses and certifications which are required to perform services under these Terms and Conditions provided that such requirements are specified in writing to CTL prior to Sample Acceptance. CTL will notify the Client in writing of any decertification or revocation of any license, or notice of either, which affects work in progress.
- 4.4 The warranty obligations set forth in Sections 4.1, 4.2 and 4.3 are the sole and exclusive warranties given by CTL in connection with any services performed by CTL or any Results generated from such services, and CTL gives and makes NO OTHER REPRESENTATION OR WARRANTY OF ANY KIND, EXPRESS OR IMPLIED. No representative of CTL is authorized to give or make any other representation or warranty or modify this warranty in any way.
- 4.5 Client's sole and exclusive remedy for the breach of warranty in connection with any services performed by CTL will be limited to repeating any services performed, contingent on the Client's providing, at the request of CTL and at the Client's expense, additional sample(s) if necessary. Any reanalysis requested by the Client generating Results consistent with the original Results will be at the Client's expense. If resampling is necessary, CTL's liability for resampling costs will be limited to actual cost or one hundred or one hundred fifty dollars (\$150) per sample, whichever is less.
- 4.6 CTL's liability for any and all causes of action arising hereunder, whether based in contract, tort, warranty, negligence or otherwise, shall be limited to the lesser amount of compensation for the services performed or \$100,000. All claims, including those for negligence, shall be deemed waived unless suit thereon is filed within one year after CTL's completion of the services. Under no circumstances, whether arising in contract, tort (including negligence), or otherwise, shall CTL be responsible for loss of use, loss of profits, or for any special, indirect, incidental or consequential damages occasioned by the services performed or by application or use of the reports prepared.
- 4.7 In no event shall CTL have any responsibility or liability to the Client for any failure or delay in performance by CTL which results, directly or indirectly, in whole or in part, from any cause or circumstance beyond the reasonable control of CTL. Such causes and circumstances shall include, but not be limited to, acts of God, acts of Client, acts or orders of any governmental authority, strikes or other labor disputes, natural disasters, accidents, wars, civil disturbances, equipment breakdown, matrix interference or unknown highly contaminated samples that impact instrument operation, unavailability of supplies from usual suppliers, difficulties or delays in transportation, mail or delivery services, or any other cause beyond CTL's reasonable control.

5. RESULTS, WORK PRODUCT

- 5.1 Data or information provided to CTL or generated by services performed under this agreement shall only become the property of the Client upon receipt in full by CTL of payment for the whole Order. Ownership of any analytical method, QA/QC protocols, software programs or equipment developed by CTL for performance of work will be retained by CTL, and Client shall not disclose such information to any third party.
- 5.2 Data and sample materials provided by Client or at Client's request, and the result obtained by CTL shall be held in confidence (unless such information is generally available to the public or is in the public domain or Client has failed to pay CTL for all services rendered or is otherwise in breach of these Terms and Conditions), subject to any disclosure required by law or legal process.
- 5.3 Should the Results delivered by CTL be used by the Client or Client's client, even though subsequently determined not to meet the warranties described in these Terms and Conditions, then the compensation will be adjusted based upon mutual agreement. In no case shall the Client unreasonably withhold CTL's right to independently defend its data.
- 5.4 CTL reserves the right to subcontract services ordered by the Client to another laboratory or laboratories, if, in CTL's sole judgment, it is reasonably necessary, appropriate or advisable to do so, and with the Client's permission. CTL will in no way be liable for any subcontracted services and all applicable warranties, guarantees and insurance are those of the subcontracted laboratory.
- 5.5 CTL shall dispose of the Client's samples 30 days after the analytical report is issued, unless instructed to store them for an alternate period of time or to return such samples to the Client, in a manner consistent with U.S. Environmental Protection Agency regulations or other applicable Federal, state or local requirements. Any samples for projects that are canceled or not accepted, or for which return was requested, will be returned to the Client at their own expense. CTL reserves the right to return to the Client any sample or unused portion of a sample that is not within CTL's permitted capability or the capabilities of CTL's designated waste disposal vendor(s).
- 5.6 Unless a different time period is agreed to in any order under these Terms and Conditions, CTL agrees to retain all records for five (5) years.
- 5.7 In the event that CTL is required to respond to legal process related to services for Client, Client agrees to reimburse CTL for hourly charges for personnel involved in the response and attorney fees reasonably incurred in obtaining advice concerning the response, preparation to testify, and appearances related to the legal process, travel and all reasonable expenses associated with the litigation.

6. INSURANCE

6.1 CTL shall maintain in force during the performance of services under these Terms and Conditions, Workers' Compensation and Employer's Liability Insurance in accordance with the laws of the states having jurisdiction over CTL's employees who are engaged in the performance of the work. CTL shall also maintain during such period, Comprehensive General and Contractual Liability (limit of \$2,000,000 per occurrence/ aggregate), Comprehensive Automobile Liability, owned and hired, (\$1,000,000 combined single limit), and Professional/Pollution Liability Insurance (limit of \$5,000,000 per occurrence/aggregate). Any Client required changes to these limits or conditions may result in a change in cost to the Client.

7. AUDIT

7.1 Upon prior notice to CTL, the Client may audit and inspect CTL's records and accounts covering reimbursable costs related to work done for the Client, for a period of one (1) year after completion of the work. The purpose of any such audit shall be only for verification of such costs, and CTL shall not be required to provide access to cost records where prices are expressed as fixed fees or published unit prices.

Cooler Receipt Form

Ice Present YES NO

Temperature 3.2

IR Gun # 20

Initials RS

Date 5/13/17 Time 1330

Cooler #: 5878

158735



**SATURDAY 12:00P
PRIORITY OVERNIGHT**

TRK# 7865 5337 8258
0201

53913
WI-118 MSN

XO MSNA

APPENDIX D
FIELD PARAMETERS FORMS

TETRA TECH LOW-FLOW METHOD FIELD WATER QUALITY SAMPLING AND ANALYSIS FORM

PROJECT INFORMATION				INSTRUMENTS					
PROJECT	Oconomowoc Electroplating			Temp. & pH	Flow Cell				
PROJECT NO.	117-7413001			Conductivity	Flow Cell				
LOCATION	Oconomowoc WI			ORP	Flow Cell				
PERSONNEL	Ashley Kowalewski			DO	Flow Cell				
MONITOR WELL ID	MW-1S			MW-1D			MW-2D		
WATER TYPE	Groundwater			Groundwater			Groundwater		
DATE (month/day/year)	11-3-16			11-3-16			11-2-16		
STATIC WATER LEVEL (feet)*	4.68			4.75			4.11		
WELL DEPTH (feet)*	17.59			50.72			43.48		
PUMP INLET DEPTH (feet)*	12.50			46.50			38.50		
START PURGE TIME (Military)	12:17			11:28			13:41		
END PURGE TIME (Military)	12:47			12:00			14:05		
PURGE VOLUME (gallons)	2.0			1.0			1.5		
SAMPLE TIME (Military)	12:50			12:05			14:10		
STABILIZED INDICATOR PARAMETERS READINGS	1st	2nd	3rd	1st	2nd	3rd	1st	2nd	3rd
TIME (minutes since initial reading)	12:43	12:44	12:45	11:56	11:57	11:58	13:59	14:00	14:01
TEMPERATURE (° C)	9.85	9.84	9.92	8.32	8.34	8.33	6.74	6.77	6.77
ELECTRICAL CONDUCTANCE at 25° C (ms/cm)	0.986	0.986	0.986	0.563	0.563	0.562	1.14	1.14	1.14
DISSOLVED OXYGEN (mg/L)	0.01	0.01	0.01	0.77	0.74	0.72	0.31	0.29	0.33
pH	7.13	7.13	7.13	7.48	7.48	7.48	7.22	7.22	7.22
DISSOLVED OXYGEN (% Sat.)	0.1	0.1	0.1	6.8	6.5	6.3	2.6	2.4	2.7
Turbidity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ORP (mV)	-53	-53	-53	-144	-144	-144	-90	-90	-90
COLOR	Clear			Clear			Clear		
ODOR	None			None			None		
CLARITY	Clear			Clear			Clear		
SAMPLING PARAMETERS	# OF CONTAINERS & VOLUME; CONTAINER TYPE (A=AMBER; G=GLASS; P=PLASTIC); PRESERVATIVE TYPE (L=LAB ADDED; F=FIELD ADDED) OR NEUTRAL; FILTERED (YES or NO)								
ENDING WATER LEVEL (feet*)	4.79			11.78			7.48		
NAME OF LABORATORY	CT Laboratories			CT Laboratories			CT Laboratories		
DATE SENT TO LAB	11-3-16			11-3-16			11-2-16		
SAMPLER'S NAME	AMK			AMK			AMK		

*Measured from top of well casing.

TETRA TECH LOW-FLOW METHOD FIELD WATER QUALITY SAMPLING AND ANALYSIS FORM

PROJECT INFORMATION				INSTRUMENTS					
PROJECT	Oconomowoc Electroplating			Temp. & pH	Flow Cell				
PROJECT NO.	117-7413001			Conductivity	Flow Cell				
LOCATION	Oconomowoc WI			ORP	Flow Cell				
PERSONNEL	Ashley Kowalewski			DO	Flow Cell				
MONITOR WELL ID	MW-3D			MW-4S			MW-5D		
WATER TYPE	Groundwater			Groundwater			Groundwater		
DATE (month/day/year)	11-2-16			11-2-16			11-3-16		
STATIC WATER LEVEL (feet)*	6.16			5.86			2.01		
WELL DEPTH (feet)*	50.56			18.09			24.45		
PUMP INLET DEPTH (feet)*	45.50			13.0			22.0		
START PURGE TIME (Military)	14:28			10:10			10:48		
END PURGE TIME (Military)	15:15			10:35			11:10		
PURGE VOLUME (gallons)	3.0			1.0			1.0		
SAMPLE TIME (Military)	15:20			10:40			11:15		
STABILIZED INDICATOR PARAMETERS READINGS	1st	2nd	3rd	1st	2nd	3rd	1st	2nd	3rd
TIME (minutes since initial reading)	15:11	15:12	15:13	10:30	10:31	10:32	11:05	11:06	11:07
TEMPERATURE (° C)	6.14	6.14	6.14	8.4	8.33	8.33	6.40	6.45	6.47
ELECTRICAL CONDUCTANCE at 25° C (ms/cm)	1.09	1.08	1.08	2.01	2.01	2.02	1.07	1.07	1.07
DISSOLVED OXYGEN (mg/L)	1.32	1.24	1.31	0.91	0.90	0.86	0.16	0.19	0.15
pH	7.22	7.22	7.22	6.72	6.72	6.71	7.21	7.21	7.21
DISSOLVED OXYGEN (% Sat.)	11.0	10.4	10.9	7.9	7.7	7.1	1.3	1.5	1.3
Turbidity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ORP (mV)	-62	-62	-62	119	115	111	-80	-81	-81
COLOR	Clear			Clear			Clear		
ODOR	None			None			None		
CLARITY	Clear			Clear			Clear		
SAMPLING PARAMETERS	# OF CONTAINERS & VOLUME; CONTAINER TYPE (A=AMBER; G=GLASS; P=PLASTIC); PRESERVATIVE TYPE (L=LAB ADDED; F=FIELD ADDED) OR NEUTRAL; FILTERED (YES or NO)								
ENDING WATER LEVEL (feet*)	11.11			5.97			3.00		
NAME OF LABORATORY	CT Laboratories			CT Laboratories			CT Laboratories		
DATE SENT TO LAB	11-2-16 AMK			11-2-16 AMK			11-3-16 AMK		
SAMPLER' S NAME									

*Measured from top of well casing.

TETRA TECH LOW-FLOW METHOD FIELD WATER QUALITY SAMPLING AND ANALYSIS FORM

PROJECT INFORMATION				INSTRUMENTS					
PROJECT	Oconomowoc Electroplating			Temp. & pH	Flow Cell				
PROJECT No	117-7413001			Conductivity	Flow Cell				
LOCATION	Oconomowoc WI			ORP	Flow Cell				
PERSONNEL	Ashley Kowalewski			DO	Flow Cell				
MONITOR WELL ID	MW-9S			MW-12S			MW-12D		
WATER TYPE	Groundwater			Groundwater			Groundwater		
DATE (month/day/year)	11-3-16			11-1-16			11-1-16		
STATIC WATER LEVEL (feet)*	4.05			1.55			1.63		
WELL DEPTH (feet)*	22.33			14.89			25.11		
PUMP INLET DEPTH (feet)*	17.0			9.50			22.50		
START PURGE TIME (Military)	9:55			12:38			13:18		
END PURGE TIME (Military)	10:27			13:06			13:36		
PURGE VOLUME (gallons)	1.5			2.0			1.5		
SAMPLE TIME (Military)	10:30			13:10			13:40		
STABILIZED INDICATOR PARAMETERS READINGS	1st	2nd	3rd	1st	2nd	3rd	1st	2nd	3rd
TIME (minutes since initial reading)	1:00	2:00	3:00	13:03	13:04	13:05	13:33	13:34	13:35
TEMPERATURE (° C)	7.25	7.29	7.32	16.29	16.21	16.18	9.30	9.32	9.37
ELECTRICAL CONDUCTANCE at 25° C (ms/cm)	1.41	1.40	1.40	1.01	1.01	1.02	1.17	1.15	1.15
DISSOLVED OXYGEN (mg/L)	0.16	0.13	0.14	0.0	0.0	0.0	0.36	0.41	0.39
pH	7.23	7.23	7.23	6.89	6.89	6.90	6.98	6.98	6.98
DISSOLVED OXYGEN (% Sat.)	1.7	1.2	1.3	0.0	0.0	0.0	3.3	3.8	3.6
Turbidity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ORP (mV)	-61	-61	-61	29	26	24	-91	-92	-92
COLOR	Clear			Clear			Clear		
ODOR	None			None			None		
CLARITY	Clear			Clear			Clear		
SAMPLING PARAMETERS	# OF CONTAINERS & VOLUME; CONTAINER TYPE (A=AMBER; G=GLASS; P=PLASTIC); PRESERVATIVE TYPE (L=LAB ADDED; F=FIELD ADDED) OR NEUTRAL; FILTERED (YES or NO)								
ENDING WATER LEVEL (feet*)	4.21			1.87			2.77		
NAME OF LABORATORY	CT Laboratories			CT Laboratories			CT Laboratories		
DATE SENT TO LAB	11-3-16			11-1-16			11-1-16		
SAMPLER'S NAME	AMK			AMK			AMK		

*Measured from top of well casing.

TETRA TECH LOW-FLOW METHOD FIELD WATER QUALITY SAMPLING AND ANALYSIS FORM

PROJECT INFORMATION				INSTRUMENTS					
PROJECT	Oconomowoc Electroplating			Temp. & pH	Flow Cell				
PROJECT NO.	117-7413001			Conductivity	Flow Cell				
LOCATION	Oconomowoc WI			ORP	Flow Cell				
PERSONNEL	Ashley Kowalewski			DO	Flow Cell				
MONITOR WELL ID	MW-12B			MW-13S			MW-13D		
WATER TYPE	Groundwater			Groundwater			Groundwater		
DATE (month/day/year)	11-1-16			11-1-16			11-1-16		
STATIC WATER LEVEL (feet)*	2.77			4.51			3.44		
WELL DEPTH (feet)*	44.55			15.31			31.91		
PUMP INLET DEPTH (feet)*	42.0			10.50			29.50		
START PURGE TIME (Military)	13:48			15:14			14:45		
END PURGE TIME (Military)	14:13			15:42			15:00		
PURGE VOLUME (gallons)	2.0			2.0			1.5		
SAMPLE TIME (Military)	14:20			15:45			15:05		
STABILIZED INDICATOR PARAMETERS READINGS	1 st	2 nd	3 rd	1 st	2 nd	3 rd	1 st	2 nd	3 rd
TIME (minutes since initial reading)	14:11	14:12	14:13	15:40	15:41	15:42	15:01	15:02	15:03
TEMPERATURE (° C)	9.14	9.23	9.29	12.95	12.93	12.90	8.67	8.61	8.58
ELECTRICAL CONDUCTANCE at 25° C (ms/cm)	0.890	0.885	0.879	0.756	0.760	0.755	1.07	1.07	1.07
DISSOLVED OXYGEN (mg/L)	0.87	0.86	0.79	4.52	4.32	4.08	0.20	0.19	0.19
pH	7.76	7.77	7.77	6.77	6.76	6.74	7.05	7.05	7.05
DISSOLVED OXYGEN (% Sat.)	7.9	7.8	7.1	44.6	42.5	40.7	2.00	1.7	1.4
Turbidity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ORP (mV)	-191	-191	-190	122	124	126	-83	-83	-83
COLOR	Clear			Clear			Clear		
ODOR	None			None			None		
CLARITY	Clear			Clear			Clear		
SAMPLING PARAMETERS	# OF CONTAINERS & VOLUME; CONTAINER TYPE (A=AMBER; G=GLASS; P=PLASTIC); PRESERVATIVE TYPE (L=LAB ADDED; F=FIELD ADDED) OR NEUTRAL; FILTERED (YES or NO)								
ENDING WATER LEVEL (feet*)	12.06			4.64			3.52		
NAME OF LABORATORY	CT Laboratories			CT Laboratories			CT Laboratories		
DATE SENT TO LAB	11-1-16			11-1-16			11-1-16		
SAMPLER' S NAME	AMK			AMK			AMK		

*Measured from top of well casing.

TETRA TECH LOW-FLOW METHOD FIELD WATER QUALITY SAMPLING AND ANALYSIS FORM

PROJECT INFORMATION				INSTRUMENTS					
PROJECT	Oconomowoc Electroplating			Temp. & pH	Flow Cell				
PROJECT NO.	117-7413001			Conductivity	Flow Cell				
LOCATION	Oconomowoc WI			ORP	Flow Cell				
PERSONNEL	Ashley Kowalewski			DO	Flow Cell				
MONITOR WELL ID	MW-15S			MW-15D			MW-15B		
WATER TYPE	Groundwater			Groundwater			Groundwater		
DATE (month/day/year)	11-4-16			11-4-16			11-4-16		
STATIC WATER LEVEL (feet)*	7.23			8.28			13.98		
WELL DEPTH (feet)*	16.18			39.19			57.06		
PUMP INLET DEPTH (feet)*	11.50			34.0			54.50		
START PURGE TIME (Military)	11:30			12:15			10:29		
END PURGE TIME (Military)	12:02			13:00			12:10		
PURGE VOLUME (gallons)	2.0			3.0			1.5		
SAMPLE TIME (Military)	12:05			13:15			12:15		
STABILIZED INDICATOR PARAMETERS READINGS	1st	2nd	3rd	1st	2nd	3rd	1st	2nd	3rd
TIME (minutes since initial reading)	11:59	12:00	12:01	13:10	13:11	13:12	12:07	12:08	12:09
TEMPERATURE (° C)	8.76	8.77	8.77	6.35	6.35	6.43	3.08	3.12	3.20
ELECTRICAL CONDUCTANCE at 25° C (ms/cm)	1.23	1.22	1.22	0.523	0.526	0.528	0.698	0.697	0.695
DISSOLVED OXYGEN (mg/L)	1.89	1.89	1.92	8.67	8.78	8.71	0.33	0.33	0.29
pH	6.66	6.69	6.70	7.43	7.43	7.43	7.32	7.32	7.33
DISSOLVED OXYGEN (% Sat.)	18.7	18.9	19.4	72.6	73.7	73.2	2.5	2.5	2.3
Turbidity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ORP (mV)	10	12	13	111	112	114	-114	-114	-115
COLOR	Clear			Clear			Clear		
ODOR	None			None			None		
CLARITY	Clear			Clear			Clear		
SAMPLING PARAMETERS	# OF CONTAINERS & VOLUME; CONTAINER TYPE (A=AMBER; G=GLASS; P=PLASTIC); PRESERVATIVE TYPE (L=LAB ADDED; F=FIELD ADDED) OR NEUTRAL; FILTERED (YES or NO)								
ENDING WATER LEVEL (feet*)	7.26			8.37			22.39		
NAME OF LABORATORY	CT Laboratories			CT Laboratories			CT Laboratories		
DATE SENT TO LAB	11-7-16			11-7-16			11-7-16		
SAMPLER'S NAME	AMK			AMK			AMK		

*Measured from top of well casing.

TETRA TECH LOW-FLOW METHOD FIELD WATER QUALITY SAMPLING AND ANALYSIS FORM

PROJECT INFORMATION				INSTRUMENTS					
PROJECT	Oconomowoc Electroplating			Temp. & pH	Flow Cell				
PROJECT NO.	117-7413001			Conductivity	Flow Cell				
LOCATION	Oconomowoc WI			ORP	Flow Cell				
PERSONNEL	Ashley Kowalewski			DO	Flow Cell				
MONITOR WELL ID	MW-16S			MW-101S			MW-101B		
WATER TYPE	Groundwater			Groundwater			Groundwater		
DATE (month/day/year)	11-4-16			11-3-16			11-3-16		
STATIC WATER LEVEL (feet)*	2.19			2.85			3.47		
WELL DEPTH (feet)*	14.42			12.40			48.75		
PUMP INLET DEPTH (feet)*	9.5			7.50			46.25		
START PURGE TIME (Military)	14:23			14:53			14:12		
END PURGE TIME (Military)	14:41			15:12			14:40		
PURGE VOLUME (gallons)	1.5			2.0			2.0		
SAMPLE TIME (Military)	14:45			15:15			14:45		
STABILIZED INDICATOR PARAMETERS READINGS	1st	2nd	3rd	1st	2nd	3rd	1st	2nd	3rd
TIME (minutes since initial reading)	14:38	14:39	14:40	15:08	15:09	15:10	14:35	14:36	14:37
TEMPERATURE (° C)	6.28	6.28	6.32	13.48	13.58	13.67	8.80	8.80	8.81
ELECTRICAL CONDUCTANCE at 25° C (ms/cm)	2.62	2.66	2.69	0.374	0.375	0.374	1.01	1.00	0.999
DISSOLVED OXYGEN (mg/L)	0.09	0.05	0.05	3.00	2.93	2.88	0.0	0.0	0.0
pH	7.19	7.12	7.07	7.03	7.03	7.02	7.26	7.26	7.26
DISSOLVED OXYGEN (% Sat.)	0.7	0.4	0.4	29.8	29.1	28.7	0.0	0.0	0.0
Turbidity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ORP (mV)	-134	-129	-123	117	119	121	42	38	39
COLOR	Clear			Clear			Clear		
ODOR	None			None			None		
CLARITY	Clear			Clear			Clear		
SAMPLING PARAMETERS	# OF CONTAINERS & VOLUME; CONTAINER TYPE (A=AMBER; G=GLASS; P=PLASTIC); PRESERVATIVE TYPE (L=LAB ADDED; F=FIELD ADDED) OR NEUTRAL; FILTERED (YES or NO)								
ENDING WATER LEVEL (feet*)	2.88			3.00			3.49		
NAME OF LABORATORY	CT Laboratories			CT Laboratories			CT Laboratories		
DATE SENT TO LAB	11-7-16			11-3-16			11-3-16		
SAMPLER'S NAME	AMK			AMK			AMK		

*Measured from top of well casing.

TETRA TECH LOW-FLOW METHOD FIELD WATER QUALITY SAMPLING AND ANALYSIS FORM

PROJECT INFORMATION				INSTRUMENTS					
PROJECT	Oconomowoc Electroplating			Temp. & pH	Flow Cell				
PROJECT NO.	117-7413001			Conductivity	Flow Cell				
LOCATION	Oconomowoc WI			ORP	Flow Cell				
PERSONNEL	Ashley Kowalewski			DO	Flow Cell				
MONITOR WELL ID	MW-102S			MW-102D			MW-103S		
WATER TYPE	Groundwater			Groundwater			Groundwater		
DATE (month/day/year)	11-3-16			11-3-16			11-2-16		
STATIC WATER LEVEL (feet)*	6.20			6.64			4.88		
WELL DEPTH (feet)*	15.56			48.36			16.57		
PUMP INLET DEPTH (feet)*	10.50			45.75			11.50		
START PURGE TIME (Military)	16:24			15:38			11:12		
END PURGE TIME (Military)	16:47			16:12			11:35		
PURGE VOLUME (gallons)	2.5			2.5			1.5		
SAMPLE TIME (Military)	16:50			16:15			11:40		
STABILIZED INDICATOR PARAMETERS READINGS	1st	2nd	3rd	1st	2nd	3rd	1st	2nd	3rd
TIME (minutes since initial reading)	16:43	16:44	16:45	16:09	16:10	16:11	11:31	11:32	11:33
TEMPERATURE (° C)	11.82	11.81	11.78	11.14	11.13	11.12	8.01	8.01	8.03
ELECTRICAL CONDUCTANCE at 25° C (ms/cm)	2.33	2.34	2.35	1.33	1.32	1.33	0.875	0.879	0.883
DISSOLVED OXYGEN (mg/L)	0.60	0.62	0.63	0.0	0.0	0.0	0.98	0.91	0.92
pH	6.97	6.96	6.96	7.20	7.20	7.20	6.78	6.78	6.78
DISSOLVED OXYGEN (% Sat.)	5.8	6.0	6.0	0.0	0.0	0.0	8.7	8.0	8.2
Turbidity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ORP (mV)	90	92	94	-87	-87	-87	164	165	165
COLOR	Clear			Clear			Clear		
ODOR	None			None			None		
CLARITY	Clear			Clear			Clear		
SAMPLING PARAMETERS	# OF CONTAINERS & VOLUME; CONTAINER TYPE (A=AMBER; G=GLASS; P=PLASTIC); PRESERVATIVE TYPE (L=LAB ADDED; F=FIELD ADDED) OR NEUTRAL; FILTERED (YES or NO)								
ENDING WATER LEVEL (feet*)	6.31			6.92			5.12		
NAME OF LABORATORY	CT Laboratories			CT Laboratories			CT Laboratories		
DATE SENT TO LAB	11-3-16			11-3-16			11-2-16		
SAMPLER'S NAME	AMK			AMK			AMK		

*Measured from top of well casing.

TETRA TECH LOW-FLOW METHOD FIELD WATER QUALITY SAMPLING AND ANALYSIS FORM

PROJECT INFORMATION				INSTRUMENTS					
PROJECT	Oconomowoc Electroplating			Temp. & pH	Flow Cell				
PROJECT NO.	117-7413001			Conductivity	Flow Cell				
LOCATION	Oconomowoc WI			ORP	Flow Cell				
PERSONNEL	Ashley Kowalewski			DO	Flow Cell				
MONITOR WELL ID	MW-103D			MW-105S			MW-105D		
WATER TYPE	Groundwater			Groundwater			Groundwater		
DATE (month/day/year)	11-2-16			11-1-16			11-1-16		
STATIC WATER LEVEL (feet)*	4.82			3.06			2.37		
WELL DEPTH (feet)*	26.88			15.60			29.61		
PUMP INLET DEPTH (feet)*	24.25			10.60			27.20		
START PURGE TIME (Military)	11:51			11:20			10:45		
END PURGE TIME (Military)	12:10			12:00			11:07		
PURGE VOLUME (gallons)	1.5			1.0			1.5		
SAMPLE TIME (Military)	12:15/12:20			12:05/12:10			11:10		
STABILIZED INDICATOR PARAMETERS READINGS	1st	2nd	3rd	1st	2nd	3rd	1st	2nd	3rd
TIME (minutes since initial reading)	12:06	12:07	12:08	11:56	11:57	11:58	11:05	11:06	11:07
TEMPERATURE (° C)	6.91	6.88	6.87	9.01	9.00	9.00	10.86	10.87	10.87
ELECTRICAL CONDUCTANCE at 25° C (ms/cm)	1.29	1.29	1.29	1.77	1.77	1.76	1.05	1.05	1.05
DISSOLVED OXYGEN (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0	1.20	1.16	1.14
pH	6.81	6.81	6.81	7.02	7.02	7.03	7.32	7.31	7.31
DISSOLVED OXYGEN (% Sat.)	0.0	0.0	0.0	0.0	0.0	0.0	11.3	10.9	10.7
Turbidity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ORP (mV)	3	4	4	-66	-66	-67	-82	-82	-82
COLOR	Clear			Clear			Clear		
ODOR	None			None			None		
CLARITY	Clear			Clear			Clear		
SAMPLING PARAMETERS	# OF CONTAINERS & VOLUME; CONTAINER TYPE (A=AMBER; G=GLASS; P=PLASTIC); PRESERVATIVE TYPE (L=LAB ADDED; F=FIELD ADDED) OR NEUTRAL; FILTERED (YES or NO)								
ENDING WATER LEVEL (feet*)	5.21			3.24			2.38		
NAME OF LABORATORY	CT Laboratories			CT Laboratories			CT Laboratories		
DATE SENT TO LAB	11-2-16			11-1-16			11-1-16		
SAMPLER'S NAME	AMK			AMK			AMK		

*Measured from top of well casing.

TETRA TECH LOW-FLOW METHOD FIELD WATER QUALITY SAMPLING AND ANALYSIS FORM

PROJECT INFORMATION				INSTRUMENTS					
PROJECT	Oconomowoc Electroplating			Temp. & pH	Flow Cell				
PROJECT NO.	117-7413001			Conductivity	Flow Cell				
LOCATION	Oconomowoc WI			ORP	Flow Cell				
PERSONNEL	Ashley Kowalewski			DO	Flow Cell				
MONITOR WELL ID	MW-105B			TW-202I			OW-6		
WATER TYPE	Groundwater			Groundwater			Groundwater		
DATE (month/day/year)	11-1-16			11-1-16			11-2-16		
STATIC WATER LEVEL (feet)*	2.81			3.94			4.86		
WELL DEPTH (feet)*	47.13			20.98			50.56		
PUMP INLET DEPTH (feet)*	44.60			18.50			48.0		
START PURGE TIME (Military)	10:15			15:57			12:42		
END PURGE TIME (Military)	10:35			16:20			13:15		
PURGE VOLUME (gallons)	1.0			1.0			2.0		
SAMPLE TIME (Military)	10:40			16:25			13:20		
STABILIZED INDICATOR PARAMETERS READINGS	1st	2nd	3rd	1 st	2nd	3rd	1st	2nd	3rd
TIME (minutes since initial reading)	10:32	10:34	10:35	16:16	16:17	16:18	13:10	13:11	13:12
TEMPERATURE (° C)	6.82	6.85	6.90	8.16	8.14	8.14	6.93	6.94	6.94
ELECTRICAL CONDUCTANCE at 25° C (ms/cm)	0.816	0.816	0.815	1.23	1.23	1.23	0.952	0.950	0.951
DISSOLVED OXYGEN (mg/L)	6.61	6.55	6.49	0.26	0.11	0.0	0.49	0.47	0.44
pH	6.61	6.59	6.58	6.93	6.93	6.93	7.49	7.49	7.48
DISSOLVED OXYGEN (% Sat.)	56.1	55.6	55.1	2.5	1.2	0.0	4.2	4.0	3.8
Turbidity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ORP (mV)	-160	-161	-161	-29	-29	-29	-166	-166	-166
COLOR	Clear			Clear			Clear		
ODOR	None			None			None		
CLARITY	Clear			Clear			Clear		
SAMPLING PARAMETERS	# OF CONTAINERS & VOLUME; CONTAINER TYPE (A=AMBER; G=GLASS; P=PLASTIC); PRESERVATIVE TYPE (L=LAB ADDED; F=FIELD ADDED) OR NEUTRAL; FILTERED (YES or NO)								
ENDING WATER LEVEL (feet*)	9.46			4.15			14.30		
NAME OF LABORATORY	CT Laboratories			CT Laboratories			CT Laboratories		
DATE SENT TO LAB	11-1-16			11-1-16			11-2-16		
SAMPLER'S NAME	AMK			AMK			AMK		

*Measured from top of well casing.

TETRA TECH LOW-FLOW METHOD FIELD WATER QUALITY SAMPLING AND ANALYSIS FORM

PROJECT INFORMATION				INSTRUMENTS					
PROJECT	Oconomowoc Electroplating			Temp. & pH	Flow Cell				
PROJECT NO.	117-7413001			Conductivity	Flow Cell				
LOCATION	Oconomowoc WI			ORP	Flow Cell				
PERSONNEL	Ashley Kowalewski			DO	Flow Cell				
MONITOR WELL ID	MW-14DR								
WATER TYPE	Groundwater			Groundwater			Groundwater		
DATE (month/day/year)	11-3-16								
STATIC WATER LEVEL (feet)*	2.80								
WELL DEPTH (feet)*	31.74								
PUMP INLET DEPTH (feet)*	26.75								
START PURGE TIME (Military)	13:25								
END PURGE TIME (Military)	13:50								
PURGE VOLUME (gallons)	1.5								
SAMPLE TIME (Military)	13:55								
STABILIZED INDICATOR PARAMETERS READINGS	1st	2nd	3rd	1st	2nd	3rd	1st	2nd	3rd
TIME (minutes since initial reading)	13:45	13:46	13:47	:00	:00	:00	:00	:00	:00
TEMPERATURE (° C)	7.40	7.40	7.40						
ELECTRICAL CONDUCTANCE at 25° C (ms/cm)	1.00	1.00	1.00						
DISSOLVED OXYGEN (mg/L)	0.05	0.05	0.00						
pH	7.17	7.17	7.16						
DISSOLVED OXYGEN (% Sat.)	0.5	0.5	0.0						
Turbidity	0.0	0.0	0.0						
ORP (mV)	106	106	105						
COLOR	Clear								
ODOR	None								
CLARITY	Clear								
SAMPLING PARAMETERS	# OF CONTAINERS & VOLUME; CONTAINER TYPE (A=AMBER; G=GLASS; P=PLASTIC); PRESERVATIVE TYPE (L=LAB ADDED; F=FIELD ADDED) OR NEUTRAL; FILTERED (YES or NO)								
ENDING WATER LEVEL (feet*)	2.82								
NAME OF LABORATORY	CT Laboratories								
DATE SENT TO LAB	11-3-16								
SAMPLER'S NAME	AMK								

*Measured from top of well casing.

TETRA TECH PRIVATE WELL FIELD WATER QUALITY SAMPLING AND ANALYSIS FORM

PROJECT INFORMATION		INSTRUMENTS		
PROJECT	Oconomowoc Electroplating	Temp. & pH	Hanna	
PROJECT NO.	117-7413001	Conductivity	Hanna	
LOCATION	Oconomowoc WI	ORP	Hanna	
PERSONNEL	Ashley Kowalewski	DO	Hanna	
SAMPLE POINT ID	PW-03	PW-11	PW-05	PW-07
WATER TYPE	Groundwater	Groundwater	Groundwater	Groundwater
DATE (month/day/year)	11- 2 -16	11- 2 -16		10-31-16
CLOCK TIME (Military)	17:25	16:46	Not sampled.	15:40
PROPERTY ADDRESS	2601 Oak Sreet, Ashippun, WI 53003	2613 Elm Street, Ashippun, WI 53003	2611 Oak Street, Ashippun, WI 53003	2602 Elm Street, Ashippun, WI 53003
DEPTH TO WATER (ft)*				
WELL DEPTH (ft)*				60
SAMPLING DEVICE				Outdoor spigot
PURGE RATE (gpm)				5.0
PURGE VOLUME (gallons)	50	50		
FIELD TEMPERATURE (°C)	12.7	12.4		12.3
pH	7.47	7.43		7.58
ELEC. COND. (uS/cm) at 25° C	954	1055		1032
COLOR	Clear	Clear		Clear
ODOR	None	None		None
CLARITY	Clear	Clear		Clear
SAMPLING PARAMETERS	# OF CONTAINERS & VOLUME; CONTAINER TYPE (A = AMBER GLASS; G = GLASS; P = PLASTIC); PRESERVATIVE TYPE (L = LAB ADDED; F = FIELD ADDED) OR NEUTRAL; FILTERED (YES or NO)			
VOCs (EPA Method 8260)				
NAME OF LABORATORY	CT Labs	CT Labs		CT Labs
DATE SENT TO LAB	11-2-16	11-2-16		11-1-16
SAMPLER' S NAME	AMK	AMK		AMK

*Measured from top of well casing.

TETRA TECH PRIVATE WELL FIELD WATER QUALITY SAMPLING AND ANALYSIS FORM

PROJECT INFORMATION		INSTRUMENTS		
PROJECT	Oconomowoc Electroplating	Temp. & pH	Hanna	
PROJECT NO.	117-7413001	Conductivity	Hanna	
LOCATION	Oconomowoc WI	ORP	Hanna	
PERSONNEL	Ashley Kowalewski	DO	Hanna	
SAMPLE POINT ID	PW-08	PW-09	PW-10	PW-04
WATER TYPE	Groundwater	Groundwater	Groundwater	Groundwater
DATE (month/day/year)	10-31-16	11- 2 -16	10-31-16	11-1-16
CLOCK TIME (Military)	14:20	9:35	15:05	16:50
PROPERTY ADDRESS	2603 Elm Street, Ashippun, WI 53003	2606 Elm Street, Ashippun, WI 53003	2607 Elm Street, Ashippun, WI 53003	
DEPTH TO WATER (ft)*				
WELL DEPTH (ft)*	40	57	66	
SAMPLING DEVICE	Outdoor spigot		Outdoor Spigot	Outdoor pump
PURGE RATE (gpm)	7.5	Purged before I came.	4.0	20.0
PURGE VOLUME (gallons)	113	30	60	100
FIELD TEMPERATURE (°C)	12.8	12.9	12.5	12.9
pH	7.71	7.24	7.61	7.67
ELEC. COND. (uS/cm) at 25° C	974	979	1071	977
COLOR	Clear	Clear	Clear	Clear
ODOR	None	None	None	None
CLARITY	Clear	Clear	Clear	Clear
SAMPLING PARAMETERS	# OF CONTAINERS & VOLUME; CONTAINER TYPE (A = AMBER GLASS; G = GLASS; P = PLASTIC); PRESERVATIVE TYPE (L = LAB ADDED; F = FIELD ADDED) OR NEUTRAL; FILTERED (YES or NO)			
VOCs (EPA Method 8260)				
NAME OF LABORATORY	CT Labs	CT Labs	CT Labs	CT Labs
DATE SENT TO LAB	11-1-16	11-2-16	11-1-16	11-1-16
SAMPLER' S NAME	AMK	AMK	AMK	AMK

*Measured from top of well casing.

TETRA TECH FIELD WATER LEVEL DATA SHEET

Project Number: 117-7413001.01

Project Name: Oconomowoc Electroplating

Location: Oconomowoc, WI

Instrument: Heron

Personnel: Ashley Kowalewski

Date: 10-31-16

Monitor Well/ Sample Port Identification	Date	Time	Depth to Groundwater (feet below top of casing)	Comments
MW-1S	10-31-16	10:57	4.74	
MW-1D	10-31-16	10:56	4.62	
MW-2D	10-31-16	11:40	4.21	
MW-3D	10-31-16	12:14	6.25	
MW-4S	10-31-16	12:38	5.88	
MW-5D	10-31-16	11:18	2.05	
MW-9S	10-31-16	11:07	4.08	
MW-12S	10-31-16	11:48	3.22	
MW12D	10-31-16	11:46	1.62	
MW-12B	10-31-16	11:45	2.65	
MW-13S	10-31-16	12:20	4.46	
MW-13D	10-31-16	12:18	3.34	
MW-15S	10-31-16	13:02	7.06	
MW-15D	10-31-16	13:04	8.28	
MW-15B	10-31-16	13:00	14.08	
MW-16S	11-4-16	14:23	2.19	
MW-101S	10-31-16	12:46	2.88	
MW-101B	10-31-16	12:44	2.87	
MW-102S	10-31-16	13:20	6.02	
MW-102D	10-31-16	13:19	6.80	
MW-103S	10-31-16	11:31	4.97	
MW-103D	10-31-16	11:32	4.86	
MW-105S	10-31-16	11:23	2.99	
MW-105D	10-31-16	11:24	2.32	
MW-105B	10-31-16	11:25	2.08	
TW-202I	10-31-16	12:17	3.91	
OW-6	10-31-16	11:36	4.79	
MW-14DR	10-31-16	12:33	3.38	
MW-104S	10-31-16	11:03	3.67	
MW-104D	10-31-16	11:04	3.55	
MW-106S	10-31-16	13:29	3.09	
MW-106D	10-31-16	13:27	2.24	
MW-4D	10-31-16	12:37	6.20	

TETRA TECH LOW-FLOW METHOD FIELD WATER QUALITY SAMPLING AND ANALYSIS FORM

PROJECT INFORMATION				INSTRUMENTS					
PROJECT	Oconomowoc Electroplating			Temp. & pH	Flow Cell				
PROJECT NO.	117-7413001			Conductivity	Flow Cell				
LOCATION	Oconomowoc WI			ORP	Flow Cell				
PERSONNEL	Ashley Kowalewski			DO	Flow Cell				
MONITOR WELL ID	MW-1S			MW-1D			MW-2D		
WATER TYPE	Groundwater			Groundwater			Groundwater		
DATE (month/day/year)	5-10-17			5-10-17			5-10-17		
STATIC WATER LEVEL (feet)*	5.00			5.09			4.30		
WELL DEPTH (feet)*	17.59			50.72			43.48		
PUMP INLET DEPTH (feet)*	17.10			50.20			50.20		
START PURGE TIME (Military)	12:45			13:30			14:20		
END PURGE TIME (Military)	13:12			13:45			14:37		
PURGE VOLUME (gallons)	2.0			1.5			1.5		
SAMPLE TIME (Military)	13:15			13:50			14:40		
STABILIZED INDICATOR PARAMETERS READINGS	1st	2nd	3rd	1st	2nd	3rd	1st	2nd	3rd
TIME (minutes since initial reading)	1:00	2:00	3:00	1:00	2:00	3:00	1:00	2:00	3:00
TEMPERATURE (° C)	16.24	16.18	16.12	14.63	14.63	14.61	10.57	10.56	10.56
ELECTRICAL CONDUCTANCE at 25° C (us/cm)	0.896	0.896	0.895	0.506	0.504	0.504	1.11	1.11	1.11
DISSOLVED OXYGEN (ppm)	3.68	3.50	3.30	0.11	0.10	0.09	3.70	3.62	3.56
pH	7.36	7.36	7.36	7.53	7.54	7.54	7.37	7.37	7.36
DISSOLVED OXYGEN (% Sat.)	38.7	36.8	34.7	1.1	1.0	0.9	34.4	33.7	33.1
Turbidity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ORP (mV)	-41	-42	-43	-122	-123	-124	161	163	165
COLOR	Clears			Clear			Clear		
ODOR	None			None			None		
CLARITY	Orange Chunks			Clear			Clear		
SAMPLING PARAMETERS	# OF CONTAINERS & VOLUME; CONTAINER TYPE (A=AMBER; G=GLASS; P=PLASTIC); PRESERVATIVE TYPE (L=LAB ADDED; F=FIELD ADDED) OR NEUTRAL; FILTERED (YES or NO)								
ENDING WATER LEVEL (feet*)	5.09			12.80			9.50		
NAME OF LABORATORY	CT Laboratories			CT Laboratories			CT Laboratories		
DATE SENT TO LAB	5-10-17			5-10-17			5-10-17		
SAMPLER'S NAME	AMK			AMK			AMK		

*Measured from top of well casing.

TETRA TECH LOW-FLOW METHOD FIELD WATER QUALITY SAMPLING AND ANALYSIS FORM

PROJECT INFORMATION				INSTRUMENTS					
PROJECT	Oconomowoc Electroplating			Temp. & pH	Flow Cell				
PROJECT NO.	117-7413001			Conductivity	Flow Cell				
LOCATION	Oconomowoc WI			ORP	Flow Cell				
PERSONNEL	Ashley Kowalewski			DO	Flow Cell				
MONITOR WELL ID	MW-3D			MW-4S			MW-5D		
WATER TYPE	Groundwater			Groundwater			Groundwater		
DATE (month/day/year)	5-12-17			5-11-17			5-12-17		
STATIC WATER LEVEL (feet)*	6.55			6.22			2.38		
WELL DEPTH (feet)*	50.56			18.09			24.45		
PUMP INLET DEPTH (feet)*	50.10			17.70			24.10		
START PURGE TIME (Military)	11:43			15:10			12:35		
END PURGE TIME (Military)	12:00			15:25			12:45		
PURGE VOLUME (gallons)	1.5			1.0			1.5		
SAMPLE TIME (Military)	12:05			15:30			12:50		
STABILIZED INDICATOR PARAMETERS READINGS	1st	2nd	3rd	1st	2nd	3rd	1st	2nd	3rd
TIME (minutes since initial reading)	1:00	2:00	3:00	1:00	2:00	3:00	1:00	2:00	3:00
TEMPERATURE (° C)	12.38	12.39	12.44	11.76	11.78	11.69	11.13	11.11	11.10
ELECTRICAL CONDUCTANCE at 25° C (us/cm)	1.01	1.01	1.01	1.14	1.14	1.14	1.03	1.04	1.04
DISSOLVED OXYGEN (ppm)	2.32	2.31	2.32	0.55	0.51	0.49	0.16	0.14	0.13
pH	7.34	7.34	7.34	6.90	6.90	6.90	7.29	7.29	7.28
DISSOLVED OXYGEN (% Sat.)	22.5	22.4	22.5	5.2	4.9	4.6	1.5	1.3	1.2
Turbidity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ORP (mV)	112	114	114	249	247	246	-37	-40	-42
COLOR	Clear			Clear			Clear		
ODOR	None			None			None		
CLARITY	Clear			Clear			Clear		
SAMPLING PARAMETERS	# OF CONTAINERS & VOLUME; CONTAINER TYPE (A=AMBER; G=GLASS; P=PLASTIC); PRESERVATIVE TYPE (L=LAB ADDED; F=FIELD ADDED) OR NEUTRAL; FILTERED (YES or NO)								
ENDING WATER LEVEL (feet*)	10.95			6.19			3.44		
NAME OF LABORATORY	CT Laboratories			CT Laboratories			CT Laboratories		
DATE SENT TO LAB	5-12-17			5-11-17			5-12-17		
SAMPLER' S NAME	AMK			AMK			AMK		

*Measured from top of well casing.

TETRA TECH LOW-FLOW METHOD FIELD WATER QUALITY SAMPLING AND ANALYSIS FORM

PROJECT INFORMATION				INSTRUMENTS					
PROJECT	Oconomowoc Electroplating			Temp. & pH	Flow Cell				
PROJECT No	117-7413001			Conductivity	Flow Cell				
LOCATION	Oconomowoc WI			ORP	Flow Cell				
PERSONNEL	Ashley Kowalewski			DO	Flow Cell				
MONITOR WELL ID	MW-9S			MW-12S			MW-12D		
WATER TYPE	Groundwater			Groundwater			Groundwater		
DATE (month/day/year)	5-12-17			5-9-17			5-9-17		
STATIC WATER LEVEL (feet)*	4.27			3.58			1.72		
WELL DEPTH (feet)*	22.23			14.89			25.11		
PUMP INLET DEPTH (feet)*	21.80			14:50			24:70		
START PURGE TIME (Military)	13:15			12:10			12:45		
END PURGE TIME (Military)	13:40			12:25			12:00		
PURGE VOLUME (gallons)	2.5			1.0			1.5		
SAMPLE TIME (Military)	13:45			12:30			12:05		
STABILIZED INDICATOR PARAMETERS READINGS	1st	2nd	3rd	1st	2nd	3rd	1st	2nd	3rd
TIME (minutes since initial reading)	1:00	2:00	3:00	1:00	2:00	3:00	1:00	2:00	3:00
TEMPERATURE (° C)	13.32	13.34	13.36	7.68	7.66	7.65	9.58	9.62	9.62
ELECTRICAL CONDUCTANCE at 25° C (us/cm)	1.12	1.12	1.12	1.62	1.62	1.62	1.37	1.37	1.37
DISSOLVED OXYGEN (ppm)	0.01	0.01	0.01	1.20	1.13	1.05	0.25	0.23	0.22
pH	7.23	7.23	7.23	7.46	7.45	7.45	7.44	7.44	7.44
DISSOLVED OXYGEN (% Sat.)	0.1	0.1	0.1	10.5	9.8	9.1	2.3	2.1	2.0
Turbidity	0.0	0.0	0.0	26.9	26.7	26.2	0.0	0.0	0.0
ORP (mV)	-35	-36	-36	58	56	55	-30	-32	-34
COLOR	Light orange			Clear-Orange			Clear		
ODOR	None			None			None		
CLARITY	Orange Chunks			Clear			Clear		
SAMPLING PARAMETERS	# OF CONTAINERS & VOLUME; CONTAINER TYPE (A=AMBER; G=GLASS; P=PLASTIC); PRESERVATIVE TYPE (L=LAB ADDED; F=FIELD ADDED) OR NEUTRAL; FILTERED (YES or NO)								
ENDING WATER LEVEL (feet*)	4.42			3.83			1.92		
NAME OF LABORATORY	CT Laboratories			CT Laboratories			CT Laboratories		
DATE SENT TO LAB	5-12-17			5-9-17			5-9-17		
SAMPLER'S NAME	AMK			AMK			AMK		

*Measured from top of well casing.

TETRA TECH LOW-FLOW METHOD FIELD WATER QUALITY SAMPLING AND ANALYSIS FORM

PROJECT INFORMATION				INSTRUMENTS					
PROJECT	Oconomowoc Electroplating			Temp. & pH	Flow Cell				
PROJECT NO.	117-7413001			Conductivity	Flow Cell				
LOCATION	Oconomowoc WI			ORP	Flow Cell				
PERSONNEL	Ashley Kowalewski			DO	Flow Cell				
MONITOR WELL ID	MW-12B			MW-13S			MW-13D		
WATER TYPE	Groundwater			Groundwater			Groundwater		
DATE (month/day/year)	5-9-17			5-9-17			5-9-17		
STATIC WATER LEVEL (feet)*	2.83			4.50			3.38		
WELL DEPTH (feet)*	44.55			15.31			31.94		
PUMP INLET DEPTH (feet)*	44.10			15.00			31.50		
START PURGE TIME (Military)	13:15			14:51			14:12		
END PURGE TIME (Military)	13:30			15:10			14:33		
PURGE VOLUME (gallons)	1.5			1.5			2.0		
SAMPLE TIME (Military)	13:35			15:15			14:35		
STABILIZED INDICATOR PARAMETERS READINGS	1st	2nd	3rd	1st	2nd	3rd	1st	2nd	3rd
TIME (minutes since initial reading)	1:00	2:00	3:00	1:00	2:00	3:00	1:00	2:00	3:00
TEMPERATURE (° C)	10.75	10.80	10.84	11.63	11.62	11.62	9.83	9.82	9.83
ELECTRICAL CONDUCTANCE at 25° C (us/cm)	1.04	1.04	1.04	1.09	1.09	1.09	1.37	1.37	1.37
DISSOLVED OXYGEN (ppm)	0.12	0.10	0.7	4.52	4.46	4.41	0.72	0.69	0.65
pH	8.24	8.26	8.27	7.51	7.51	7.51	7.56	7.57	7.55
DISSOLVED OXYGEN (% Sat.)	1.1	1.0	0.7	43.1	42.6	42.0	606	6.3	5.9
Turbidity	0.0	0.0	0.0	60.0	60.3	62.0	157	168	163
ORP (mV)	-69	-71	-75	204	204	203	-34	-36	-37
COLOR	Clear			Orange/Clear			Orange/Clear		
ODOR	None			None			None		
CLARITY	Clear			Orange Chunks			Clear/Opaque		
SAMPLING PARAMETERS	# OF CONTAINERS & VOLUME; CONTAINER TYPE (A=AMBER; G=GLASS; P=PLASTIC); PRESERVATIVE TYPE (L=LAB ADDED; F=FIELD ADDED) OR NEUTRAL; FILTERED (YES or NO)								
ENDING WATER LEVEL (feet*)	11.33			4.53			3.43		
NAME OF LABORATORY	CT Laboratories			CT Laboratories			CT Laboratories		
DATE SENT TO LAB	5-9-17			5-9-17			5-9-17		
SAMPLER' S NAME	AMK			AMK			AMK		

*Measured from top of well casing.

TETRA TECH LOW-FLOW METHOD FIELD WATER QUALITY SAMPLING AND ANALYSIS FORM

PROJECT INFORMATION				INSTRUMENTS					
PROJECT	Oconomowoc Electroplating			Temp. & pH	Flow Cell				
PROJECT NO.	117-7413001			Conductivity	Flow Cell				
LOCATION	Oconomowoc WI			ORP	Flow Cell				
PERSONNEL	Ashley Kowalewski			DO	Flow Cell				
MONITOR WELL ID	MW-15S			MW-15D			MW-15B		
WATER TYPE	Groundwater			Groundwater			Groundwater		
DATE (month/day/year)	5-11-17			5-11-17			5-11-17		
STATIC WATER LEVEL (feet)*	7.09			8.34			13.27		
WELL DEPTH (feet)*	16.17			39.19			57.06		
PUMP INLET DEPTH (feet)*	15.70			38.70			56.70		
START PURGE TIME (Military)	11:56			12:25			11:20		
END PURGE TIME (Military)	12:12			12:45			11:35		
PURGE VOLUME (gallons)	1.5			1.5			1.25		
SAMPLE TIME (Military)	12:15			12:50			11:40		
STABILIZED INDICATOR PARAMETERS READINGS	1st	2nd	3rd	1st	2nd	3rd	1st	2nd	3rd
TIME (minutes since initial reading)	1:00	2:00	3:00	1:00	2:00	3:00	1:00	2:00	3:00
TEMPERATURE (° C)	12.84	12.87	12.86	13.28	13.28	13.27	13.43	13.45	13.47
ELECTRICAL CONDUCTANCE at 25° C (us/cm)	0.461	0.462	0.463	0.957	0.956	0.956	0.558	0.549	0.549
DISSOLVED OXYGEN (ppm)	5.88	5.87	5.88	0.04	0.04	0.03	1.26	1.32	1.40
pH	7.36	7.35	7.35	7.06	7.06	7.06	7.22	7.22	7.23
DISSOLVED OXYGEN (% Sat.)	57.6	57.5	57.5	0.4	0.4	0.3	12.8	13.1	13.9
Turbidity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ORP (mV)	208	211	214	138	136	133	-95	-93	-92
COLOR	Clear			Clear			Clear		
ODOR	None			None			None		
CLARITY	Clear			Clear			Clear		
SAMPLING PARAMETERS	# OF CONTAINERS & VOLUME; CONTAINER TYPE (A=AMBER; G=GLASS; P=PLASTIC); PRESERVATIVE TYPE (L=LAB ADDED; F=FIELD ADDED) OR NEUTRAL; FILTERED (YES or NO)								
ENDING WATER LEVEL (feet*)	7.11			8.38			21.02		
NAME OF LABORATORY	CT Laboratories			CT Laboratories			CT Laboratories		
DATE SENT TO LAB	5-11-17			5-11-17			5-11-17		
SAMPLER'S NAME	AMK			AMK			AMK		

*Measured from top of well casing.

TETRA TECH LOW-FLOW METHOD FIELD WATER QUALITY SAMPLING AND ANALYSIS FORM

PROJECT INFORMATION				INSTRUMENTS					
PROJECT	Oconomowoc Electroplating			Temp. & pH	Flow Cell				
PROJECT NO.	117-7413001			Conductivity	Flow Cell				
LOCATION	Oconomowoc WI			ORP	Flow Cell				
PERSONNEL	Ashley Kowalewski			DO	Flow Cell				
MONITOR WELL ID	MW-16S			MW-101S			MW-101B		
WATER TYPE	Groundwater			Groundwater			Groundwater		
DATE (month/day/year)	5-12-17			5-11-17			5-11-17		
STATIC WATER LEVEL (feet)*	2.52			2.83			3.60		
WELL DEPTH (feet)*	14.42			12.41			48.75		
PUMP INLET DEPTH (feet)*	14.10			12.1			48.2		
START PURGE TIME (Military)	10:50			13:23			13:50		
END PURGE TIME (Military)	11:10			13:42			14:06		
PURGE VOLUME (gallons)	1.25			2.0			1.5		
SAMPLE TIME (Military)	11:15			13:45			14:10		
STABILIZED INDICATOR PARAMETERS READINGS	1st	2nd	3rd	1st	2nd	3rd	1st	2nd	3rd
TIME (minutes since initial reading)	1:00	2:00	3:00	1:00	2:00	3:00	1:00	2:00	3:00
TEMPERATURE (° C)	9.90	9.87	9.89	12.10	12.09	12.11	13.81	13.76	13.71
ELECTRICAL CONDUCTANCE at 25° C (us/cm)	2.86	2.86	2.86	1.08	1.09	1.10	0.927	0.926	0.926
DISSOLVED OXYGEN (ppm)	0.58	0.55	0.58	1.44	1.38	1.31	0.20	0.19	0.18
pH	6.74	6.76	6.76	6.95	6.95	6.95	7.17	7.17	7.17
DISSOLVED OXYGEN (% Sat.)	5.3	5.0	4.9	13.9	13.3	12.9	2.0	1.9	1.8
Turbidity	110	116	126	0.0	0.0	0.0	0.0	0.0	0.0
ORP (mV)	-14	-17	-19	224	224	223	197	195	193
COLOR	Clear			Clear			Clear		
ODOR	None			None			None		
CLARITY	Clear			Clear			Clear		
SAMPLING PARAMETERS	# OF CONTAINERS & VOLUME; CONTAINER TYPE (A=AMBER; G=GLASS; P=PLASTIC); PRESERVATIVE TYPE (L=LAB ADDED; F=FIELD ADDED) OR NEUTRAL; FILTERED (YES or NO)								
ENDING WATER LEVEL (feet*)	3.31			3.11			3.74		
NAME OF LABORATORY	CT Laboratories			CT Laboratories			CT Laboratories		
DATE SENT TO LAB	5-12-17			5-11-17			5-11-17		
SAMPLER'S NAME	AMK			AMK			AMK		

*Measured from top of well casing.

TETRA TECH LOW-FLOW METHOD FIELD WATER QUALITY SAMPLING AND ANALYSIS FORM

PROJECT INFORMATION				INSTRUMENTS					
PROJECT	Oconomowoc Electroplating			Temp. & pH	Flow Cell				
PROJECT NO.	117-7413001			Conductivity	Flow Cell				
LOCATION	Oconomowoc WI			ORP	Flow Cell				
PERSONNEL	Ashley Kowalewski			DO	Flow Cell				
MONITOR WELL ID	MW-102S			MW-102D			MW-103S		
WATER TYPE	Groundwater			Groundwater			Groundwater		
DATE (month/day/year)	5-11-17			5-11-17			5-9-17		
STATIC WATER LEVEL (feet)*	6.10			6.63			5.31		
WELL DEPTH (feet)*	15.56			48.36			16.57		
PUMP INLET DEPTH (feet)*	15.1			48.0			16.10		
START PURGE TIME (Military)	10:40			10:05			9:55		
END PURGE TIME (Military)	11:00			10:25			10:23		
PURGE VOLUME (gallons)	1.5			1.5			1.5		
SAMPLE TIME (Military)	11:05			10:30			10:25		
STABILIZED INDICATOR PARAMETERS READINGS	1st	2nd	3rd	1st	2nd	3rd	1st	2nd	3rd
TIME (minutes since initial reading)	1:00	2:00	3:00	1:00	2:00	3:00	1:00	2:00	3:00
TEMPERATURE (° C)	12.95	12.87	12.84	12.31	12.33	12.36	8.29	8.30	8.36
ELECTRICAL CONDUCTANCE at 25° C (us/cm)	2.84	2.83	2.82	1.18	1.19	1.18	1.08	1.08	1.08
DISSOLVED OXYGEN (ppm)	1.79	1.85	1.91	1.1	1.10	1.07	2.24	2.21	2.10
pH	6.82	6.82	6.82	7.05	7.05	7.06	7.25	7.23	7.22
DISSOLVED OXYGEN (% Sat.)	17.7	18.3	18.8	10.8	10.6	10.4	20.4	19.5	18.5
Turbidity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	82.0
ORP (mV)	157	161	164	-41	-42	-44	133	133	132
COLOR	Clear			Clear			Clear		
ODOR	None			None			None		
CLARITY	Clear			Clear			Clear		
SAMPLING PARAMETERS	# OF CONTAINERS & VOLUME; CONTAINER TYPE (A=AMBER; G=GLASS; P=PLASTIC); PRESERVATIVE TYPE (L=LAB ADDED; F=FIELD ADDED) OR NEUTRAL; FILTERED (YES or NO)								
ENDING WATER LEVEL (feet*)	6.24			6.66			5.47		
NAME OF LABORATORY	CT Laboratories			CT Laboratories			CT Laboratories		
DATE SENT TO LAB	5-11-17			5-11-17			5-9-17		
SAMPLER'S NAME	AMK			AMK			AMK		

*Measured from top of well casing.

TETRA TECH LOW-FLOW METHOD FIELD WATER QUALITY SAMPLING AND ANALYSIS FORM

PROJECT INFORMATION				INSTRUMENTS					
PROJECT	Oconomowoc Electroplating			Temp. & pH	Flow Cell				
PROJECT NO.	117-7413001			Conductivity	Flow Cell				
LOCATION	Oconomowoc WI			ORP	Flow Cell				
PERSONNEL	Ashley Kowalewski			DO	Flow Cell				
MONITOR WELL ID	MW-103D			MW-105S			MW-105D		
WATER TYPE	Groundwater			Groundwater			Groundwater		
DATE (month/day/year)	5-9-17			5-10-17			5-10-17		
STATIC WATER LEVEL (feet)*	5.06			3.15			2.34		
WELL DEPTH (feet)*	26.86			15.58			29.61		
PUMP INLET DEPTH (feet)*	26.50			15.10			29.20		
START PURGE TIME (Military)	10:40			11:23			10:45		
END PURGE TIME (Military)	10:55			11:53			11:00		
PURGE VOLUME (gallons)	1.5			3.0			2.5		
SAMPLE TIME (Military)	11:00\11:05			11:55\12:00			11:05		
STABILIZED INDICATOR PARAMETERS READINGS	1st	2nd	3rd	1st	2nd	3rd	1st	2nd	3rd
TIME (minutes since initial reading)	1:00	2:00	3:00	1:00	2:00	3:00	1:00	2:00	3:00
TEMPERATURE (° C)	8.97	8.95	8.96	18.18	18.20	18.25	10.57	10.59	10.59
ELECTRICAL CONDUCTANCE at 25° C (us/cm)	1.46	1.46	1.46	0.938	0.941	0.944	1.16	1.17	1.17
DISSOLVED OXYGEN (ppm)	0.64	0.63	0.60	0.0	0.0	0.0	0.76	0.72	0.68
pH	7.25	7.25	7.24	7.22	7.22	7.22	7.29	7.29	7.29
DISSOLVED OXYGEN (% Sat.)	5.8	5.6	5.4	0.0	0.0	0.0	7.1	6.7	6.3
Turbidity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	134
ORP (mV)	143	140	137	-49	-50	-50	-61	-62	-63
COLOR	Clear			Clear			Clear		
ODOR	None			None			None		
CLARITY	Clear			Orange chunks			Clear		
SAMPLING PARAMETERS	# OF CONTAINERS & VOLUME; CONTAINER TYPE (A=AMBER; G=GLASS; P=PLASTIC); PRESERVATIVE TYPE (L=LAB ADDED; F=FIELD ADDED) OR NEUTRAL; FILTERED (YES or NO)								
ENDING WATER LEVEL (feet*)	5.56			3.46			2.34		
NAME OF LABORATORY	CT Laboratories			CT Laboratories			CT Laboratories		
DATE SENT TO LAB	5-9-17			5-10-17			5-10-17		
SAMPLER'S NAME	AMK			AMK			AMK		

*Measured from top of well casing.

TETRA TECH LOW-FLOW METHOD FIELD WATER QUALITY SAMPLING AND ANALYSIS FORM

PROJECT INFORMATION				INSTRUMENTS					
PROJECT	Oconomowoc Electroplating			Temp. & pH	Flow Cell				
PROJECT NO.	117-7413001			Conductivity	Flow Cell				
LOCATION	Oconomowoc WI			ORP	Flow Cell				
PERSONNEL	Ashley Kowalewski			DO	Flow Cell				
MONITOR WELL ID	MW-105B			TW-202I			OW-6		
WATER TYPE	Groundwater			Groundwater			Groundwater		
DATE (month/day/year)	5-10-17			5-9-17			5-10-17		
STATIC WATER LEVEL (feet)*	2.34			3.92			4.30		
WELL DEPTH (feet)*	47.13			20.98			50.56		
PUMP INLET DEPTH (feet)*	46.70			20.50			50.20		
START PURGE TIME (Military)	10:08			15:30			14:20		
END PURGE TIME (Military)	10:25			15:45			14:37		
PURGE VOLUME (gallons)	1.5			3.0			1.5		
SAMPLE TIME (Military)	10:30			15:50			14:40		
STABILIZED INDICATOR PARAMETERS READINGS	1st	2nd	3rd	1st	2nd	3rd	1st	2nd	3rd
TIME (minutes since initial reading)	1:00	2:00	3:00	1:00	2:00	3:00	1:00	2:00	3:00
TEMPERATURE (° C)	10.80	10.77	10.76	10.08	10.08	10.07	10.57	10.56	10.56
ELECTRICAL CONDUCTANCE at 25° C (us/cm)	0.782	0.782	0.784	1.53	1.52	1.52	1.11	1.11	1.111
DISSOLVED OXYGEN (ppm)	1.23	1.19	1.15	0.28	0.31	0.34	3.70	3.62	3.56
pH	7.48	7.50	7.52	7.34	7.34	7.34	7.37	7.37	7.36
DISSOLVED OXYGEN (% Sat.)	11.5	11.2	10.8	2.6	2.9	3.1	34.4	33.7	33.1
Turbidity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ORP (mV)	-49	-50	-50	43	44	45	161	163	135
COLOR	Clear			Clear			Clear		
ODOR	None			None			None		
CLARITY	Clear			Clear			Clear		
SAMPLING PARAMETERS	# OF CONTAINERS & VOLUME; CONTAINER TYPE (A=AMBER; G=GLASS; P=PLASTIC); PRESERVATIVE TYPE (L=LAB ADDED; F=FIELD ADDED) OR NEUTRAL; FILTERED (YES or NO)								
ENDING WATER LEVEL (feet*)	11.56			3.94			9.50		
NAME OF LABORATORY	CT Laboratories			CT Laboratories			CT Laboratories		
DATE SENT TO LAB	5-10-17			5-9-17			5-10-17		
SAMPLER'S NAME	AMK			AMK			AMK		

*Measured from top of well casing.

TETRA TECH LOW-FLOW METHOD FIELD WATER QUALITY SAMPLING AND ANALYSIS FORM

PROJECT INFORMATION				INSTRUMENTS					
PROJECT	Oconomowoc Electroplating			Temp. & pH	Flow Cell				
PROJECT NO.	117-7413001			Conductivity	Flow Cell				
LOCATION	Oconomowoc WI			ORP	Flow Cell				
PERSONNEL	Ashley Kowalewski			DO	Flow Cell				
MONITOR WELL ID	MW-14DR								
WATER TYPE	Groundwater			Groundwater			Groundwater		
DATE (month/day/year)	5-11-17								
STATIC WATER LEVEL (feet)*	3.04								
WELL DEPTH (feet)*	31.74								
PUMP INLET DEPTH (feet)*	31.30								
START PURGE TIME (Military)	14:37								
END PURGE TIME (Military)	14:52								
PURGE VOLUME (gallons)	1.25								
SAMPLE TIME (Military)	14:55								
STABILIZED INDICATOR PARAMETERS READINGS	1st	2nd	3rd	1st	2nd	3rd	1st	2nd	3rd
TIME (minutes since initial reading)	1:00	2:00	3:00	:00	:00	:00	:00	:00	:00
TEMPERATURE (° C)	12.43	12.49	12.53						
ELECTRICAL CONDUCTANCE at 25° C (us/cm)	0.831	0.829	0.829						
DISSOLVED OXYGEN (ppm)	0.57	0.60	0.63						
pH	7.14	7.14	7.15						
DISSOLVED OXYGEN (% Sat.)	5.6	5.8	6.1						
Turbidity	0.0	0.0	0.0						
ORP (mV)	219	220	222						
COLOR	Clear								
ODOR	None								
CLARITY	Clear								
SAMPLING PARAMETERS	# OF CONTAINERS & VOLUME; CONTAINER TYPE (A=AMBER; G=GLASS; P=PLASTIC); PRESERVATIVE TYPE (L=LAB ADDED; F=FIELD ADDED) OR NEUTRAL; FILTERED (YES or NO)								
ENDING WATER LEVEL (feet*)	3.11								
NAME OF LABORATORY	CT Laboratories								
DATE SENT TO LAB	5-11-17								
SAMPLER'S NAME	AMK								

*Measured from top of well casing.

APPENDIX E

NATURAL BIODEGRADATION POTENTIAL SCORING CRITERIA TABLE

Table 1: Analytical Parameters and Weighting for Screening

Analyte	Concentration in Most Contaminated Zone	Interpretation/Comments	Points
Oxygen ^a	<.5 mg/L	Tolerated; suppresses reductive dechlorination at higher concentrations	3
Oxygen ^a	>1 mg/L	Vinyl chloride may be oxidized aerobically, but reductive dechlorination will not occur	-3
Nitrate ^a	<1 mg/L	May compete with reductive pathway at higher concentrations	2
Manganese (II)	>1 mg/L	Anaerobic oxidation of cDCE possible	2
Iron (II)	>1 mg/L	Reductive pathway possible; anaerobic oxidation of vinyl chloride to CO ₂ possible	3
Sulfate ^a	<20 mg/L	May compete with reductive pathway at higher concentrations	2
Sulfide ^a	>1 mg/L	Reductive pathway possible	3
Methane ^a	>.01 mg/L	Ultimate reductive breakdown product	2
	>1	Vinyl chloride accumulates	3
	<1	Vinyl chloride oxidizes	
Oxidation reduction potential ^a	<50 mV against Ag/AgCl	Reductive pathway possible	<50 mV = 1 <-100 mV = 2
pH ^a	5<pH<9	Tolerated range for reductive pathway	
DOC	>20 mg/L	Carbon and energy source; drives dechlorination; can be natural or anthropogenic	2
Temperature ^a	>20°C	At T>20°C, chemical process can be accelerated ^(f)	1
Carbon dioxide	>2x background	Ultimate oxidative breakdown product	1
Alkalinity	>2x background	Results from interaction of carbon dioxide with aquifer minerals	1
Chloride ^a	>2x background	Product of organic chlorine ; compare chloride in plume to background conditions	2
Hydrogen	>1 nM	Reductive pathway possible; vinyl chloride may accumulate	3
	<1 nM	Vinyl chloride oxidized	
Volatile fatty acids	>0.1 mg/L	Intermediates resulting from biodegradation of aromatic compounds; carbon and energy source	2
BTEX ^a	>0.1 mg/L	Carbon and energy source; drives dechlorination	2
Perchloroethene ^a		Material released	0
Trichloroethene ^a		Material released	0
		Product of perchloroethene dehalogenation	2 ^b
Dichloroethene ^a		Material released	0
		Product of trichloroethene biodegradation; if amount of <i>cis</i> -1,2-dichloroethene is greater than 80% of total dichloroethene, it is likely a product of trichloroethene or perchloroethylene dehalogenation.	2 ^b
Vinyl chloride ^a		Material released	0
		Product of dichloroethene biodegradation	2 ^b
Ethene/Ethane	<0.1 mg/L	Product of vinyl chloride dehalogenation	>0.01 mg/L=2 >0.1 = 3
Chloroethane ^a		Product of vinyl chloride biodegradation under reducing conditions	2
1,1,1-Trichloroethane ^a		Material released	0
1,1-dichloroethene ^a		Product of trichloroethene degradation or abiotic degradation of	

^a Required analysis.

^b Points awarded only if it can be shown that the compound is a breakdown product (i.e., not a constituent of the source of NAPL)

(Modified from: *Wiedemeier, T.H., J.T. Wilson, D.H. Kampbell, R.N. Miller, and J.E. Hansen. 1996*).

^(t) Temperature may have limited utility for assessing biodegradation potential. While some have found that the biodegradation rate of some chlorinated compounds is temperature dependent, others (9) found that the degradation of toluene is not dependent on temperature. Temperature may have a larger affect on abiotic degradation processes such as the degradation of 1,1,1-trichloroethane to 1,1-dichloroethylene.

APPENDIX F

RESIDENTIAL WELLS NOVEMBER 2016 SAMPLING EVENT NOTIFICATIONS

Notice: This form may be used to comply with the requirements of s. NR 716.14 (2), Wis. Adm. Code; however, use of this form is not required. An alternate format may be used. The rule requires that notification be provided to 1) property owners when someone else is conducting the sampling, 2) to occupants of property belonging to the responsible person, and 3) to owners and occupants of property that does not belong to the responsible person but has been affected by contamination arising on his or her property. Notification is required within 10 business days of receiving the sample results. Personal information collected will be used for program administration and may be provided to requesters to the extent required by Wisconsin's Open Records law [ss. 19.31-19.39, Wis. Stats.].

NOTE: Under s. NR 716.14, Wis. Adm. Code, the responsible party must also submit sample results and other required information to the DNR. We recommend that copies of the sample results notifications be included with that submittal, along with all attachments. Using the same format used for data presentation for a closure request may be helpful to all parties. See s. NR 716.14, Wis. Adm. Code for the full list of information to be submitted to the DNR.

Notification of Property Owners and Occupants:

This notification form has been provided to you in order to provide the results of environmental sampling that has been conducted on property that you own or occupy. Samples were collected in accordance with the methods identified in the site investigation work plan, in accordance with s. NR. 716.09 and 716.13, Wis. Adm. Code. This sampling was conducted as a result of contamination originating at the following location.

Site Information

Site Name		DNR ID # (BRRTS #)	
Oconomowoc Electroplating Company, Inc. (OECI) Superfund Site		02-14-000905	
Address	City	State	ZIP Code
W2573 Oak Street	Ashippun	WI	53003

Responsible Party

The person(s) responsible for completing this environmental investigation is:

Property Owner

Oconomowoc Electroplating Company, Inc.

Address	City	State	ZIP Code
W2573 Oak Street	Ashippun	WI	53003
Contact Person	Phone Number (include area code)		
William Ryan (US EPA RPM), Aristco Pelayo (WDNR PM)	(608) 767-3539		

Person or company that collected samples

Ashley Kowalewski, Tetra Tech, Inc.

Sample Results (Results Attached)

Reason for Sampling: Routine Other (define) _____

The contaminants that have been identified at this time on property that you own or occupy include:

Contaminant	In Soil?		In Groundwater?	
	Yes	No	Yes	No
Gasoline	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Diesel or Fuel Oil	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Solvents	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Heavy Metals	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Pesticides	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Other: _____	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

This sampling event included sampling of a drinking water well. <input checked="" type="radio"/> Yes <input type="radio"/> No
If yes, the sampled drinking water well had detectable contaminants. <input checked="" type="radio"/> Yes <input type="radio"/> No

Contaminants in Vapor

	Yes	No
Indoor Air	<input type="radio"/>	<input checked="" type="radio"/>
Sub-slab	<input type="radio"/>	<input checked="" type="radio"/>
Exterior Soil Gas	<input type="radio"/>	<input checked="" type="radio"/>

Site Investigation Sample Results Notification

Form 4400-249 (R 03/14)

Page 2 of 2

Attached are:

- A map that shows the locations from which samples were collected. (The map needs to meet the requirements of s. NR 716.15 (4), Wis. Adm. Code.)
- A data table with specific contaminant levels at each sample location and whether or not the sample results exceed state standards.
- A copy of the laboratory results.

You are not identified as the person that is responsible for this contamination. However, your cooperation is important. Property owners may become legally responsible for contamination if they do not allow access to the person that is responsible so that person may complete the environmental investigation and clean up activities.

Option for written exemption: You have the option of requesting a written liability exemption from the DNR for contamination that originated on another property, or on property that you lease. To do this, you must present an adequate environmental assessment of your property and pay a \$700 fee for review of this information. If you are interested in this option, please see DNR publication # RR 589, "When Contamination Crosses a Property Line - Rights and Responsibilities of Property Owners", available at: dnr.wi.gov/files/PDF/pubs/rr/rr589.pdf.

Contact Information

Please address questions regarding this notification, or requests for additional information to the contact person listed above, or to one of the following contacts:

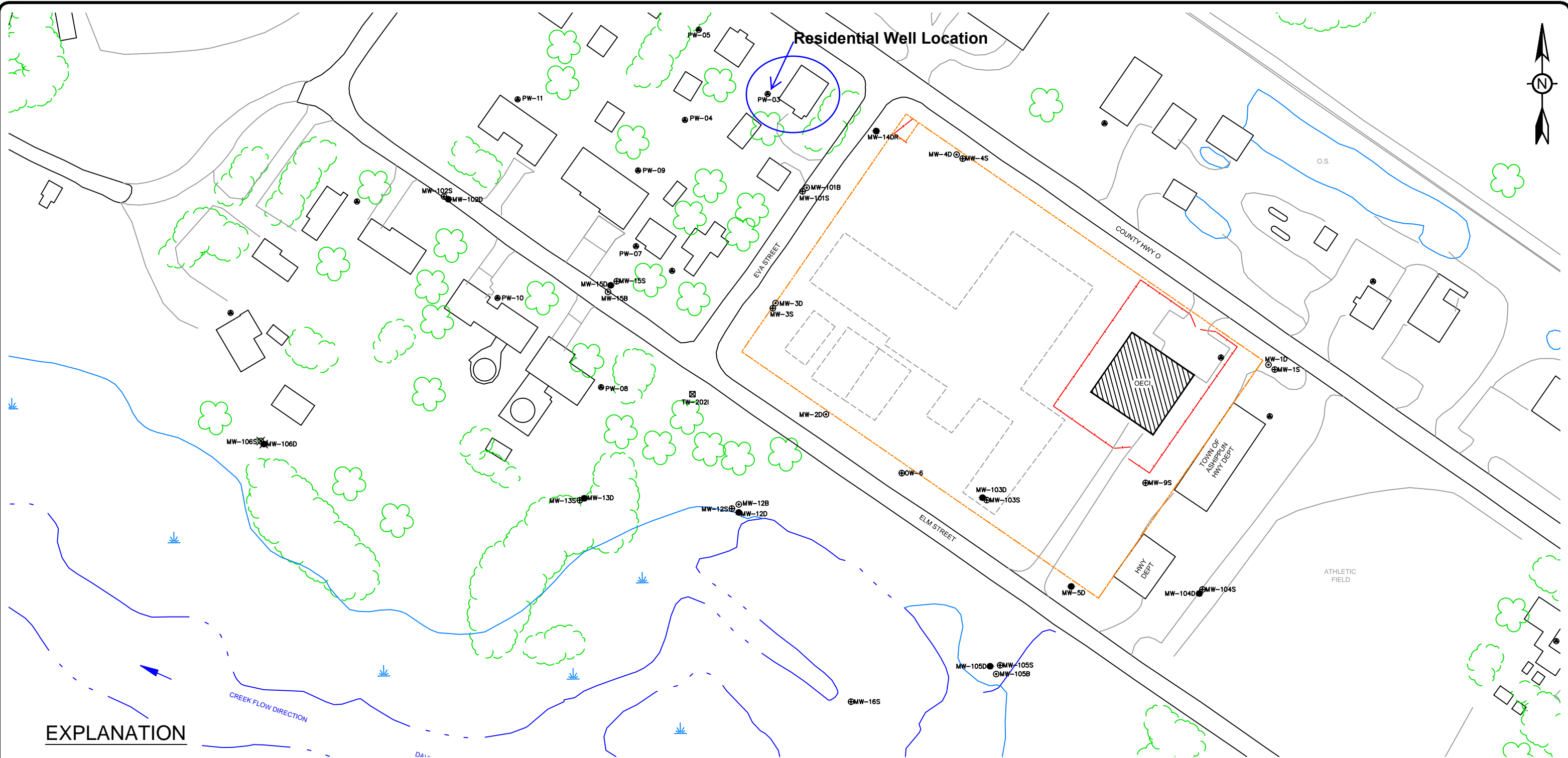
Environmental Consultant

Company Name		Contact Person Last Name	First Name	
Tetra Tech		Manthey	Mark	
Address		City	State	ZIP Code
175 N. Corporate Drive, Suite 100		Brookfield	WI	53045
Phone # (inc. area code)	Email			
(262) 792-1282	Mark.Manthey@tetrattech.com			

Select which agency: Natural Resources Agriculture, Trade and Consumer Protection

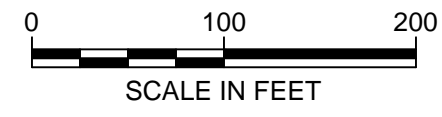
State of Wisconsin Department of Natural Resources

Contact Person Last Name		First Name	Phone # (inc. area code)	
Pelayo		Aristeo	(608) 267-3539	
Address		City	State	ZIP Code
101 S. Webster St., P.O. Box 7921		Madison	WI	53707-7921
Email				
aristeo.pelayo@wisconsin.gov				



EXPLANATION

- ⊙MW-105B BEDROCK MONITORING WELL
- MW-105D DEEP UNCONSOLIDATED MONITORING WELL
- ⊕MW-105S SHALLOW UNCONSOLIDATED MONITORING WELL
- PW-11 RESIDENTIAL WELL
- ⊙MW-106D DEEP UNCONSOLIDATED SENTINEL WELL
- ⊙MW-106S SHALLOW UNCONSOLIDATED SENTINEL WELL
- ⊠TW-2021 TEMPORARY WELL
- FORMER OECI SITE BOUNDARY
- FENCED AREA



TITLE: OCONOMOWOC ELECTROPLATING COMPANY, INC. SITE LAYOUT AND WELL LOCATIONS			
LOCATION: ASHIPPUN, WISCONSIN			
	CHECKED	MAM	FIGURE: 1
	DRAFTED	HJW	
	PROJECT	117-7413001	
DATE	12/5/14		

Groundwater Quality Data

	Date Sampled			11/2/2016 *
	Units	NR 140 ES	NR 140 PAL	PW-03
VOCs				
Chloromethane	µg/L	30.	3.	0.042 J
cis-1,2-Dichloroethene	µg/L	70.	7.	1.4
Methyl tert-butyl ether	µg/L	60.	12.	0.6
Styrene	µg/L	100.	10.	0.11 J
trans-1,2-Dichloroethene	µg/L	100.	20.	0.066 J
Trichloroethene	µg/L	5.	0.5	0.62

Notes:

µg/L = micrograms per liter, which is equivalent to parts per billion.

NR 140 ES = Wisconsin Department of Natural Resource Chapter NR 140 Enforcement Standard.

NR 140 PAL = Wisconsin Department of Natural Resource Chapter NR Preventive Action Limit.

Values in bold exceed the listed NR 140 PAL

***No ENFORCEMENT STANDARD has been attained or exceeded by these detected VOCs.**

Laboratory Quality Control Qualifiers

J: Estimated value.

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase:
 Project #: 117-7413001.01
 Folder #: 123409
 Purchase Order #:
 Contract #: 2747

Page 1 of 5
 Arrival Temperature: 1.1
 Report Date: 11/30/2016
 Date Received: 11/03/2016
 Reprint Date: 11/30/2016

CT LAB#: 800084 Sample Description: PW-03

DNR License/Well #: 4189/051

Sampled: 11/02/2016 1725

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Organic Results										
1,1,1,2-Tetrachloroethane	<0.040	ug/L	0.040	0.13	1	U	11/10/2016 12:35	11/10/2016 12:35	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.050	ug/L	0.050	0.17	1	U	11/10/2016 12:35	11/10/2016 12:35	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.017	ug/L	0.017	0.057	1	U	11/10/2016 12:35	11/10/2016 12:35	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.050	ug/L	0.050	0.16	1	U	11/10/2016 12:35	11/10/2016 12:35	RLD	EPA 8260C
1,1-Dichloroethane	<0.060	ug/L	0.060	0.19	1	U	11/10/2016 12:35	11/10/2016 12:35	RLD	EPA 8260C
1,1-Dichloroethene	<0.060	ug/L	0.060	0.20	1	U	11/10/2016 12:35	11/10/2016 12:35	RLD	EPA 8260C
1,1-Dichloropropene	<0.060	ug/L	0.060	0.19	1	U	11/10/2016 12:35	11/10/2016 12:35	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.040	ug/L	0.040	0.13	1	U	11/10/2016 12:35	11/10/2016 12:35	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.040	ug/L	0.040	0.14	1	U	11/10/2016 12:35	11/10/2016 12:35	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.040	ug/L	0.040	0.12	1	U	11/10/2016 12:35	11/10/2016 12:35	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.040	ug/L	0.040	0.12	1	U	11/10/2016 12:35	11/10/2016 12:35	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.090	ug/L	0.090	0.29	1	U	11/10/2016 12:35	11/10/2016 12:35	RLD	EPA 8260C
1,2-Dibromoethane	<0.070	ug/L	0.070	0.23	1	U	11/10/2016 12:35	11/10/2016 12:35	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U	11/10/2016 12:35	11/10/2016 12:35	RLD	EPA 8260C
1,2-Dichloroethane	<0.050	ug/L	0.050	0.18	1	U	11/10/2016 12:35	11/10/2016 12:35	RLD	EPA 8260C
1,2-Dichloropropane	<0.070	ug/L	0.070	0.23	1	U	11/10/2016 12:35	11/10/2016 12:35	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 800084 Sample Description:PW-03

DNR License/Well #: 4189/051

Sampled: 11/02/2016 1725

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,3,5-Trimethylbenzene	<0.050	ug/L	0.050	0.16	1	U		11/10/2016 12:35	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 12:35	RLD	EPA 8260C
1,3-Dichloropropane	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 12:35	RLD	EPA 8260C
1,4-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 12:35	RLD	EPA 8260C
2,2-Dichloropropane	<0.050	ug/L	0.050	0.15	1	U		11/10/2016 12:35	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.5	1	U		11/10/2016 12:35	RLD	EPA 8260C
2-Chlorotoluene	<0.030	ug/L	0.030	0.11	1	U		11/10/2016 12:35	RLD	EPA 8260C
2-Hexanone	<0.24	ug/L	0.24	0.81	1	U		11/10/2016 12:35	RLD	EPA 8260C
4-Chlorotoluene	<0.040	ug/L	0.040	0.12	1	U		11/10/2016 12:35	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.24	ug/L	0.24	0.82	1	U		11/10/2016 12:35	RLD	EPA 8260C
Acetone	<0.30	ug/L	0.30	1.0	1	U		11/10/2016 12:35	RLD	EPA 8260C
Benzene	<0.018	ug/L	0.018	0.059	1	U		11/10/2016 12:35	RLD	EPA 8260C
Bromobenzene	<0.040	ug/L	0.040	0.15	1	U		11/10/2016 12:35	RLD	EPA 8260C
Bromochloromethane	<0.030	ug/L	0.030	0.099	1	U		11/10/2016 12:35	RLD	EPA 8260C
Bromodichloromethane	<0.016	ug/L	0.016	0.054	1	U		11/10/2016 12:35	RLD	EPA 8260C
Bromoform	<0.040	ug/L	0.040	0.12	1	U Z		11/10/2016 12:35	RLD	EPA 8260C
Bromomethane	<0.080	ug/L	0.080	0.28	1	U		11/10/2016 12:35	RLD	EPA 8260C
Carbon disulfide	<0.070	ug/L	0.070	0.25	1	U		11/10/2016 12:35	RLD	EPA 8260C
Carbon tetrachloride	<0.050	ug/L	0.050	0.18	1	U		11/10/2016 12:35	RLD	EPA 8260C
Chlorobenzene	<0.040	ug/L	0.040	0.15	1	U		11/10/2016 12:35	RLD	EPA 8260C
Chloroethane	<0.070	ug/L	0.070	0.23	1	U		11/10/2016 12:35	RLD	EPA 8260C
Chloroform	<0.030	ug/L	0.030	0.11	1	U		11/10/2016 12:35	RLD	EPA 8260C
Chloromethane	0.042	ug/L	0.040	0.13	1	J		11/10/2016 12:35	RLD	EPA 8260C
cis-1,2-Dichloroethene	1.4	ug/L	0.070	0.23	1			11/10/2016 12:35	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.011	ug/L	0.011	0.038	1	U		11/10/2016 12:35	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1	U		11/10/2016 12:35	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 800084 Sample Description:PW-03

DNR License/Well #: 4189/051

Sampled: 11/02/2016 1725

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Dibromomethane	<0.050	ug/L	0.050	0.17	1	U		11/10/2016 12:35	RLD	EPA 8260C
Dichlorodifluoromethane	<0.060	ug/L	0.060	0.19	1	U		11/10/2016 12:35	RLD	EPA 8260C
Diisopropyl ether	<0.040	ug/L	0.040	0.14	1	U		11/10/2016 12:35	RLD	EPA 8260C
Ethylbenzene	<0.040	ug/L	0.040	0.15	1	U		11/10/2016 12:35	RLD	EPA 8260C
Hexachlorobutadiene	<0.050	ug/L	0.050	0.16	1	U		11/10/2016 12:35	RLD	EPA 8260C
Isopropylbenzene	<0.040	ug/L	0.040	0.12	1	U		11/10/2016 12:35	RLD	EPA 8260C
m & p-Xylene	<0.070	ug/L	0.070	0.23	1	U		11/10/2016 12:35	RLD	EPA 8260C
Methyl tert-butyl ether	0.60	ug/L	0.040	0.12	1			11/10/2016 12:35	RLD	EPA 8260C
Methylene chloride	<0.050	ug/L	0.050	0.16	1	U		11/10/2016 12:35	RLD	EPA 8260C
n-Butylbenzene	<0.030	ug/L	0.030	0.11	1	U		11/10/2016 12:35	RLD	EPA 8260C
n-Propylbenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 12:35	RLD	EPA 8260C
Naphthalene	<0.030	ug/L	0.030	0.10	1	U		11/10/2016 12:35	RLD	EPA 8260C
o-Xylene	<0.040	ug/L	0.040	0.14	1	U		11/10/2016 12:35	RLD	EPA 8260C
p-Isopropyltoluene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 12:35	RLD	EPA 8260C
sec-Butylbenzene	<0.050	ug/L	0.050	0.16	1	U		11/10/2016 12:35	RLD	EPA 8260C
Styrene	0.11	ug/L	0.030	0.11	1			11/10/2016 12:35	RLD	EPA 8260C
tert-Butylbenzene	<0.040	ug/L	0.040	0.14	1	U		11/10/2016 12:35	RLD	EPA 8260C
Tetrachloroethene	<0.050	ug/L	0.050	0.18	1	U		11/10/2016 12:35	RLD	EPA 8260C
Tetrahydrofuran	<0.40	ug/L	0.40	1.5	1	U		11/10/2016 12:35	RLD	EPA 8260C
Toluene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 12:35	RLD	EPA 8260C
trans-1,2-Dichloroethene	0.066	ug/L	0.040	0.14	1	J		11/10/2016 12:35	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.019	ug/L	0.019	0.063	1	U		11/10/2016 12:35	RLD	EPA 8260C
Trichloroethene	0.62	ug/L	0.050	0.17	1			11/10/2016 12:35	RLD	EPA 8260C
Trichlorofluoromethane	<0.090	ug/L	0.090	0.14	1	U		11/10/2016 12:35	RLD	EPA 8260C
Vinyl acetate	<0.22	ug/L	0.22	0.73	1	U		11/10/2016 12:35	RLD	EPA 8260C
Vinyl chloride	<0.019	ug/L	0.019	0.064	1	U		11/10/2016 12:35	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 800084 Sample Description:PW-03

DNR License/Well #: 4189/051

Sampled: 11/02/2016 1725

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,4-Dioxane	<7.0	ug/L	7.0	23	1	U		11/10/2016 12:35	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications
Kansas NELAP ID# E-10368
Kentucky ID# 0023
ISO/IEC 17025-2005 A2LA Cert # 3806.01
North Carolina ID# 674
Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID E871111, Expires Annually
Louisiana ID # 115843
Virginia ID# 7608
Illinois NELAP ID # 002413
Wisconsin (WOSB) ID# WI-5499-WBE
Maryland ID# 344

Notice: This form may be used to comply with the requirements of s. NR 716.14 (2), Wis. Adm. Code; however, use of this form is not required. An alternate format may be used. The rule requires that notification be provided to 1) property owners when someone else is conducting the sampling, 2) to occupants of property belonging to the responsible person, and 3) to owners and occupants of property that does not belong to the responsible person but has been affected by contamination arising on his or her property. Notification is required within 10 business days of receiving the sample results. Personal information collected will be used for program administration and may be provided to requesters to the extent required by Wisconsin's Open Records law [ss. 19.31-19.39, Wis. Stats.].

NOTE: Under s. NR 716.14, Wis. Adm. Code, the responsible party must also submit sample results and other required information to the DNR. We recommend that copies of the sample results notifications be included with that submittal, along with all attachments. Using the same format used for data presentation for a closure request may be helpful to all parties. See s. NR 716.14, Wis. Adm. Code for the full list of information to be submitted to the DNR.

Notification of Property Owners and Occupants:

This notification form has been provided to you in order to provide the results of environmental sampling that has been conducted on property that you own or occupy. Samples were collected in accordance with the methods identified in the site investigation work plan, in accordance with s. NR. 716.09 and 716.13, Wis. Adm. Code. This sampling was conducted as a result of contamination originating at the following location.

Site Information

Site Name		DNR ID # (BRRTS #)	
Oconomowoc Electroplating Company, Inc. (OECI) Superfund Site		02-14-000905	
Address	City	State	ZIP Code
W2573 Oak Street	Ashippun	WI	53003

Responsible Party

The person(s) responsible for completing this environmental investigation is:

Property Owner

Oconomowoc Electroplating Company, Inc.

Address	City	State	ZIP Code
W2573 Oak Street	Ashippun	WI	53003
Contact Person	Phone Number (include area code)		
William Ryan (US EPA RPM), Aristco Pelayo (WDNR PM)	(608) 767-3539		

Person or company that collected samples

Ashley Kowalewski, Tetra Tech, Inc.

Sample Results (Results Attached)

Reason for Sampling: Routine Other (define) _____

The contaminants that have been identified at this time on property that you own or occupy include:

Contaminant	In Soil?		In Groundwater?	
	Yes	No	Yes	No
Gasoline	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Diesel or Fuel Oil	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Solvents	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Heavy Metals	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Pesticides	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Other: _____	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

This sampling event included sampling of a drinking water well. <input checked="" type="radio"/> Yes <input type="radio"/> No
--

If yes, the sampled drinking water well had detectable contaminants. <input checked="" type="radio"/> Yes <input type="radio"/> No

Contaminants in Vapor

	Yes	No
Indoor Air	<input type="radio"/>	<input checked="" type="radio"/>
Sub-slab	<input type="radio"/>	<input checked="" type="radio"/>
Exterior Soil Gas	<input type="radio"/>	<input checked="" type="radio"/>

Site Investigation Sample Results Notification

Form 4400-249 (R 03/14)

Page 2 of 2

Attached are:

- A map that shows the locations from which samples were collected. (The map needs to meet the requirements of s. NR 716.15 (4), Wis. Adm. Code.)
- A data table with specific contaminant levels at each sample location and whether or not the sample results exceed state standards.
- A copy of the laboratory results.

You are not identified as the person that is responsible for this contamination. However, your cooperation is important. Property owners may become legally responsible for contamination if they do not allow access to the person that is responsible so that person may complete the environmental investigation and clean up activities.

Option for written exemption: You have the option of requesting a written liability exemption from the DNR for contamination that originated on another property, or on property that you lease. To do this, you must present an adequate environmental assessment of your property and pay a \$700 fee for review of this information. If you are interested in this option, please see DNR publication # RR 589, "When Contamination Crosses a Property Line - Rights and Responsibilities of Property Owners", available at: dnr.wi.gov/files/PDF/pubs/rr/rr589.pdf.

Contact Information

Please address questions regarding this notification, or requests for additional information to the contact person listed above, or to one of the following contacts:

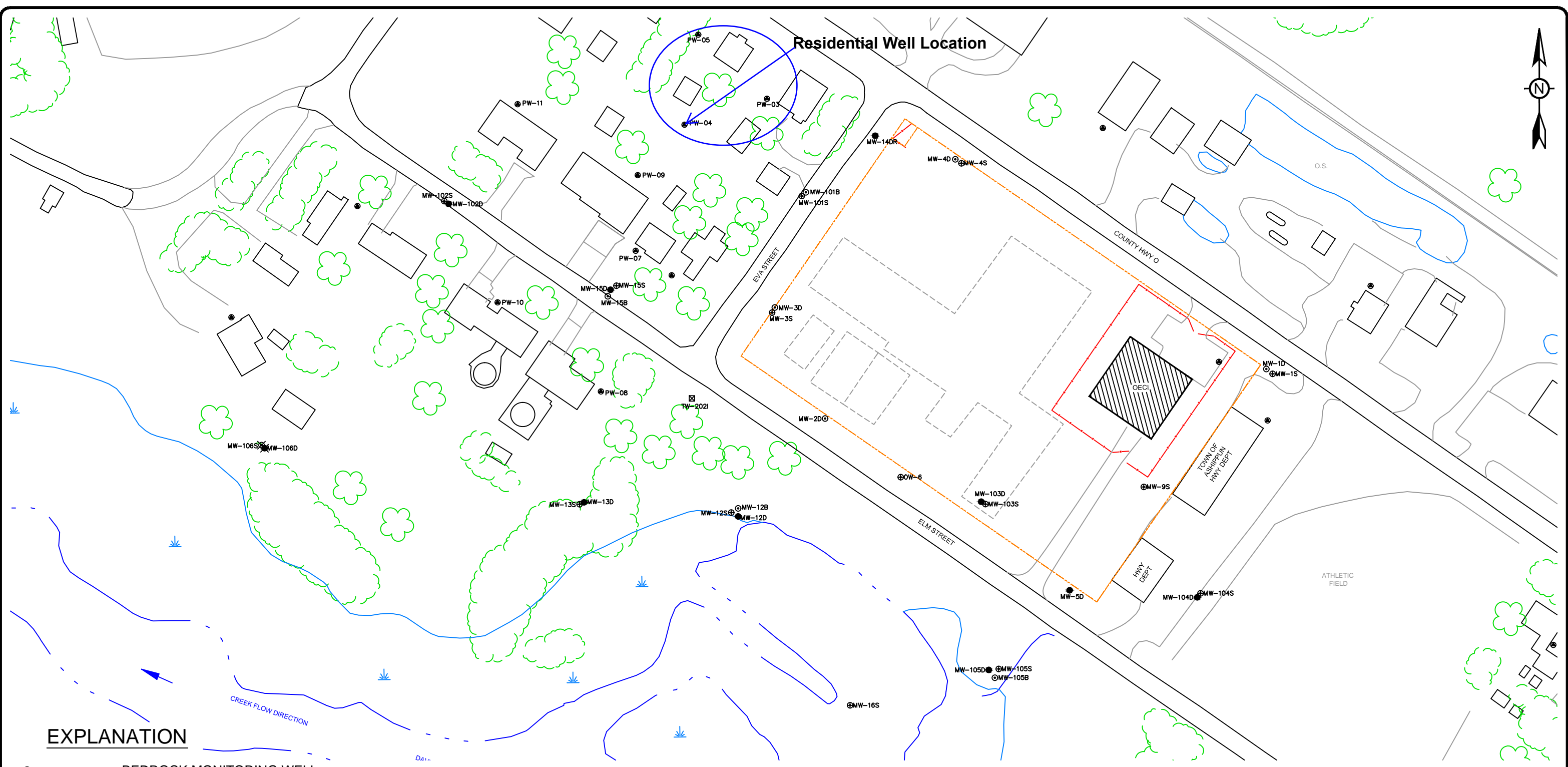
Environmental Consultant

Company Name		Contact Person Last Name	First Name	
Tetra Tech		Manthey	Mark	
Address		City	State	ZIP Code
175 N. Corporate Drive, Suite 100		Brookfield	WI	53045
Phone # (inc. area code)	Email			
(262) 792-1282	Mark.Manthey@tetrattech.com			

Select which agency: Natural Resources Agriculture, Trade and Consumer Protection

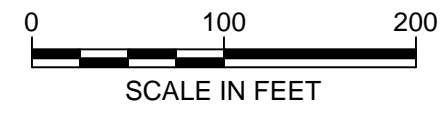
State of Wisconsin Department of Natural Resources

Contact Person Last Name		First Name	Phone # (inc. area code)	
Pelayo		Aristeo	(608) 267-3539	
Address		City	State	ZIP Code
101 S. Webster St., P.O. Box 7921		Madison	WI	53707-7921
Email				
aristeo.pelayo@wisconsin.gov				



EXPLANATION

- ⊙MW-105B BEDROCK MONITORING WELL
- MW-105D DEEP UNCONSOLIDATED MONITORING WELL
- ⊕MW-105S SHALLOW UNCONSOLIDATED MONITORING WELL
- PW-11 RESIDENTIAL WELL
- ⊙MW-106D DEEP UNCONSOLIDATED SENTINEL WELL
- ⊙MW-106S SHALLOW UNCONSOLIDATED SENTINEL WELL
- ⊠TW-2021 TEMPORARY WELL
- FORMER OECI SITE BOUNDARY
- FENCED AREA



TITLE: OCONOMOWOC ELECTROPLATING COMPANY, INC. SITE LAYOUT AND WELL LOCATIONS			
LOCATION: ASHIPGUN, WISCONSIN			
	CHECKED	MAM	FIGURE: 1
	DRAFTED	HJW	
	PROJECT	117-7413001	
DATE	12/5/14		

Groundwater Quality Data

	Date Sampled			11/1/2016 *
	Units	NR 140 ES	NR 140 PAL	PW-04
VOCs				
cis-1,2-Dichloroethene	µg/L	70.	7.	1.4
Diisopropyl ether	µg/L	--	--	0.044 J
Methyl tert-butyl ether	µg/L	60.	12.	0.55
trans-1,2-Dichloroethene	µg/L	100.	20.	0.077 J
Trichloroethene	µg/L	5.	0.5	0.089 J

Notes:

µg/L = micrograms per liter, which is equivalent to parts per billion.

NR 140 ES = Wisconsin Department of Natural Resource Chapter NR 140 Enforcement Standard.

NR 140 PAL = Wisconsin Department of Natural Resource Chapter NR Preventive Action Limit.

Values in bold exceed the listed NR 140 PAL

***No ENFORCEMENT STANDARD has been attained or exceeded by these detected VOCs.**

Laboratory Quality Control Qualifiers

J: Estimated value.

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase:
 Project #: 117-7413001.01
 Folder #: 123362
 Purchase Order #:
 Contract #: 2747

Page 1 of 5
 Arrival Temperature: 4.9
 Report Date: 11/30/2016
 Date Received: 11/02/2016
 Reprint Date: 11/30/2016

CT LAB#: 799003 Sample Description: PW-04

DNR License/Well #: 4189/052

Sampled: 11/01/2016 1650

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Organic Results										
1,1,1,2-Tetrachloroethane	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 00:31	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.050	ug/L	0.050	0.17	1	U		11/10/2016 00:31	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.017	ug/L	0.017	0.057	1	U		11/10/2016 00:31	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.050	ug/L	0.050	0.16	1	U		11/10/2016 00:31	RLD	EPA 8260C
1,1-Dichloroethane	<0.060	ug/L	0.060	0.19	1	U		11/10/2016 00:31	RLD	EPA 8260C
1,1-Dichloroethene	<0.060	ug/L	0.060	0.20	1	U		11/10/2016 00:31	RLD	EPA 8260C
1,1-Dichloropropene	<0.060	ug/L	0.060	0.19	1	U		11/10/2016 00:31	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 00:31	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.040	ug/L	0.040	0.14	1	U		11/10/2016 00:31	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.040	ug/L	0.040	0.12	1	U		11/10/2016 00:31	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.040	ug/L	0.040	0.12	1	U		11/10/2016 00:31	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.090	ug/L	0.090	0.29	1	U		11/10/2016 00:31	RLD	EPA 8260C
1,2-Dibromoethane	<0.070	ug/L	0.070	0.23	1	U		11/10/2016 00:31	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 00:31	RLD	EPA 8260C
1,2-Dichloroethane	<0.050	ug/L	0.050	0.18	1	U		11/10/2016 00:31	RLD	EPA 8260C
1,2-Dichloropropane	<0.070	ug/L	0.070	0.23	1	U		11/10/2016 00:31	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 799003 Sample Description:PW-04

DNR License/Well #: 4189/052

Sampled: 11/01/2016 1650

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,3,5-Trimethylbenzene	<0.050	ug/L	0.050	0.16	1	U		11/10/2016 00:31	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 00:31	RLD	EPA 8260C
1,3-Dichloropropane	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 00:31	RLD	EPA 8260C
1,4-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 00:31	RLD	EPA 8260C
2,2-Dichloropropane	<0.050	ug/L	0.050	0.15	1	U		11/10/2016 00:31	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.5	1	U		11/10/2016 00:31	RLD	EPA 8260C
2-Chlorotoluene	<0.030	ug/L	0.030	0.11	1	U		11/10/2016 00:31	RLD	EPA 8260C
2-Hexanone	<0.24	ug/L	0.24	0.81	1	U		11/10/2016 00:31	RLD	EPA 8260C
4-Chlorotoluene	<0.040	ug/L	0.040	0.12	1	U		11/10/2016 00:31	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.24	ug/L	0.24	0.82	1	U		11/10/2016 00:31	RLD	EPA 8260C
Acetone	<0.30	ug/L	0.30	1.0	1	U		11/10/2016 00:31	RLD	EPA 8260C
Benzene	<0.018	ug/L	0.018	0.059	1	U		11/10/2016 00:31	RLD	EPA 8260C
Bromobenzene	<0.040	ug/L	0.040	0.15	1	U		11/10/2016 00:31	RLD	EPA 8260C
Bromochloromethane	<0.030	ug/L	0.030	0.099	1	U		11/10/2016 00:31	RLD	EPA 8260C
Bromodichloromethane	<0.016	ug/L	0.016	0.054	1	U		11/10/2016 00:31	RLD	EPA 8260C
Bromoform	<0.040	ug/L	0.040	0.12	1	U		11/10/2016 00:31	RLD	EPA 8260C
Bromomethane	<0.080	ug/L	0.080	0.28	1	U Z		11/10/2016 00:31	RLD	EPA 8260C
Carbon disulfide	<0.070	ug/L	0.070	0.25	1	U		11/10/2016 00:31	RLD	EPA 8260C
Carbon tetrachloride	<0.050	ug/L	0.050	0.18	1	U		11/10/2016 00:31	RLD	EPA 8260C
Chlorobenzene	<0.040	ug/L	0.040	0.15	1	U		11/10/2016 00:31	RLD	EPA 8260C
Chloroethane	<0.070	ug/L	0.070	0.23	1	U		11/10/2016 00:31	RLD	EPA 8260C
Chloroform	<0.030	ug/L	0.030	0.11	1	U		11/10/2016 00:31	RLD	EPA 8260C
Chloromethane	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 00:31	RLD	EPA 8260C
cis-1,2-Dichloroethene	1.4	ug/L	0.070	0.23	1			11/10/2016 00:31	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.011	ug/L	0.011	0.038	1	U		11/10/2016 00:31	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1	U		11/10/2016 00:31	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 799003 Sample Description:PW-04

DNR License/Well #: 4189/052

Sampled: 11/01/2016 1650

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Dibromomethane	<0.050	ug/L	0.050	0.17	1	U		11/10/2016 00:31	RLD	EPA 8260C
Dichlorodifluoromethane	<0.060	ug/L	0.060	0.19	1	U		11/10/2016 00:31	RLD	EPA 8260C
Diisopropyl ether	0.044	ug/L	0.040	0.14	1	J		11/10/2016 00:31	RLD	EPA 8260C
Ethylbenzene	<0.040	ug/L	0.040	0.15	1	U		11/10/2016 00:31	RLD	EPA 8260C
Hexachlorobutadiene	<0.050	ug/L	0.050	0.16	1	U		11/10/2016 00:31	RLD	EPA 8260C
Isopropylbenzene	<0.040	ug/L	0.040	0.12	1	U		11/10/2016 00:31	RLD	EPA 8260C
m & p-Xylene	<0.070	ug/L	0.070	0.23	1	U		11/10/2016 00:31	RLD	EPA 8260C
Methyl tert-butyl ether	0.55	ug/L	0.040	0.12	1			11/10/2016 00:31	RLD	EPA 8260C
Methylene chloride	<0.050	ug/L	0.050	0.16	1	U		11/10/2016 00:31	RLD	EPA 8260C
n-Butylbenzene	<0.030	ug/L	0.030	0.11	1	U		11/10/2016 00:31	RLD	EPA 8260C
n-Propylbenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 00:31	RLD	EPA 8260C
Naphthalene	<0.030	ug/L	0.030	0.10	1	U		11/10/2016 00:31	RLD	EPA 8260C
o-Xylene	<0.040	ug/L	0.040	0.14	1	U		11/10/2016 00:31	RLD	EPA 8260C
p-Isopropyltoluene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 00:31	RLD	EPA 8260C
sec-Butylbenzene	<0.050	ug/L	0.050	0.16	1	U		11/10/2016 00:31	RLD	EPA 8260C
Styrene	<0.030	ug/L	0.030	0.11	1	U		11/10/2016 00:31	RLD	EPA 8260C
tert-Butylbenzene	<0.040	ug/L	0.040	0.14	1	U		11/10/2016 00:31	RLD	EPA 8260C
Tetrachloroethene	<0.050	ug/L	0.050	0.18	1	U		11/10/2016 00:31	RLD	EPA 8260C
Tetrahydrofuran	<0.40	ug/L	0.40	1.5	1	U		11/10/2016 00:31	RLD	EPA 8260C
Toluene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 00:31	RLD	EPA 8260C
trans-1,2-Dichloroethene	0.077	ug/L	0.040	0.14	1	J		11/10/2016 00:31	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.019	ug/L	0.019	0.063	1	U		11/10/2016 00:31	RLD	EPA 8260C
Trichloroethene	0.089	ug/L	0.050	0.17	1	J		11/10/2016 00:31	RLD	EPA 8260C
Trichlorofluoromethane	<0.090	ug/L	0.090	0.14	1	U		11/10/2016 00:31	RLD	EPA 8260C
Vinyl acetate	<0.22	ug/L	0.22	0.73	1	U		11/10/2016 00:31	RLD	EPA 8260C
Vinyl chloride	<0.019	ug/L	0.019	0.064	1	U		11/10/2016 00:31	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 799003 Sample Description:PW-04 DNR License/Well #: 4189/052 Sampled: 11/01/2016 1650

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,4-Dioxane	<7.0	ug/L	7.0	23	1	U		11/10/2016 00:31	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications
Kansas NELAP ID# E-10368
Kentucky ID# 0023
ISO/IEC 17025-2005 A2LA Cert # 3806.01
North Carolina ID# 674
Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID E8711111, Expires Annually
Louisiana ID # 115843
Virginia ID# 7608
Illinois NELAP ID # 002413
Wisconsin (WOSB) ID# WI-5499-WBE
Maryland ID# 344

Notice: This form may be used to comply with the requirements of s. NR 716.14 (2), Wis. Adm. Code; however, use of this form is not required. An alternate format may be used. The rule requires that notification be provided to 1) property owners when someone else is conducting the sampling, 2) to occupants of property belonging to the responsible person, and 3) to owners and occupants of property that does not belong to the responsible person but has been affected by contamination arising on his or her property. Notification is required within 10 business days of receiving the sample results. Personal information collected will be used for program administration and may be provided to requesters to the extent required by Wisconsin's Open Records law [ss. 19.31-19.39, Wis. Stats.].

NOTE: Under s. NR 716.14, Wis. Adm. Code, the responsible party must also submit sample results and other required information to the DNR. We recommend that copies of the sample results notifications be included with that submittal, along with all attachments. Using the same format used for data presentation for a closure request may be helpful to all parties. See s. NR 716.14, Wis. Adm. Code for the full list of information to be submitted to the DNR.

Notification of Property Owners and Occupants:

This notification form has been provided to you in order to provide the results of environmental sampling that has been conducted on property that you own or occupy. Samples were collected in accordance with the methods identified in the site investigation work plan, in accordance with s. NR. 716.09 and 716.13, Wis. Adm. Code. This sampling was conducted as a result of contamination originating at the following location.

Site Information

Site Name		DNR ID # (BRRTS #)	
Oconomowoc Electroplating Company, Inc. (OECI) Superfund Site		02-14-000905	
Address	City	State	ZIP Code
W2573 Oak Street	Ashippun	WI	53003

Responsible Party

The person(s) responsible for completing this environmental investigation is:

Property Owner

Oconomowoc Electroplating Company, Inc.

Address	City	State	ZIP Code
W2573 Oak Street	Ashippun	WI	53003
Contact Person	Phone Number (include area code)		
William Ryan (US EPA RPM), Aristco Pelayo (WDNR PM)	(608) 767-3539		

Person or company that collected samples

Ashley Kowalewski, Tetra Tech, Inc.

Sample Results (Results Attached)

Reason for Sampling: Routine Other (define) _____

The contaminants that have been identified at this time on property that you own or occupy include:

Contaminant	In Soil?		In Groundwater?	
	Yes	No	Yes	No
Gasoline	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Diesel or Fuel Oil	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Solvents	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Heavy Metals	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Pesticides	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Other: _____	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

This sampling event included sampling of a drinking water well. <input checked="" type="radio"/> Yes <input type="radio"/> No
If yes, the sampled drinking water well had detectable contaminants. <input checked="" type="radio"/> Yes <input type="radio"/> No

Contaminants in Vapor

	Yes	No
Indoor Air	<input type="radio"/>	<input checked="" type="radio"/>
Sub-slab	<input type="radio"/>	<input checked="" type="radio"/>
Exterior Soil Gas	<input type="radio"/>	<input checked="" type="radio"/>

Site Investigation Sample Results Notification

Form 4400-249 (R 03/14)

Page 2 of 2

Attached are:

- A map that shows the locations from which samples were collected. (The map needs to meet the requirements of s. NR 716.15 (4), Wis. Adm. Code.)
- A data table with specific contaminant levels at each sample location and whether or not the sample results exceed state standards.
- A copy of the laboratory results.

You are not identified as the person that is responsible for this contamination. However, your cooperation is important. Property owners may become legally responsible for contamination if they do not allow access to the person that is responsible so that person may complete the environmental investigation and clean up activities.

Option for written exemption: You have the option of requesting a written liability exemption from the DNR for contamination that originated on another property, or on property that you lease. To do this, you must present an adequate environmental assessment of your property and pay a \$700 fee for review of this information. If you are interested in this option, please see DNR publication # RR 589, "When Contamination Crosses a Property Line - Rights and Responsibilities of Property Owners", available at: dnr.wi.gov/files/PDF/pubs/rr/rr589.pdf.

Contact Information

Please address questions regarding this notification, or requests for additional information to the contact person listed above, or to one of the following contacts:

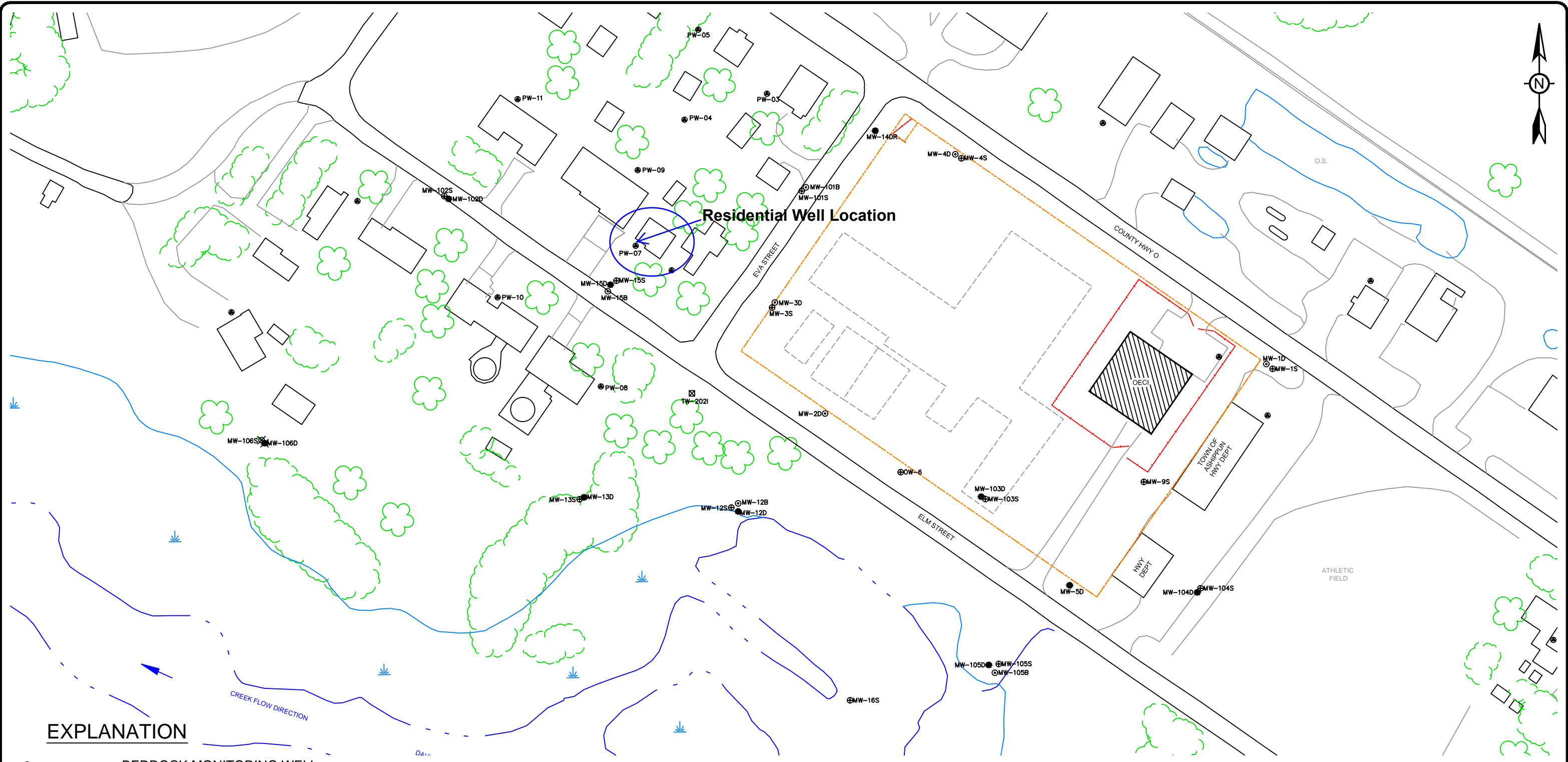
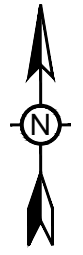
Environmental Consultant

Company Name		Contact Person Last Name	First Name	
Tetra Tech		Manthey	Mark	
Address		City	State	ZIP Code
175 N. Corporate Drive, Suite 100		Brookfield	WI	53045
Phone # (inc. area code)	Email			
(262) 792-1282	Mark.Manthey@tetrattech.com			

Select which agency: Natural Resources Agriculture, Trade and Consumer Protection

State of Wisconsin Department of Natural Resources

Contact Person Last Name		First Name	Phone # (inc. area code)	
Pelayo		Aristeo	(608) 267-3539	
Address		City	State	ZIP Code
101 S. Webster St., P.O. Box 7921		Madison	WI	53707-7921
Email				
aristeo.pelayo@wisconsin.gov				



EXPLANATION

- ⊙MW-105B BEDROCK MONITORING WELL
- MW-105D DEEP UNCONSOLIDATED MONITORING WELL
- ⊕MW-105S SHALLOW UNCONSOLIDATED MONITORING WELL
- PW-11 RESIDENTIAL WELL
- ⊗MW-106D DEEP UNCONSOLIDATED SENTINEL WELL
- ⊗MW-106S SHALLOW UNCONSOLIDATED SENTINEL WELL
- ⊠TW-2021 TEMPORARY WELL
- FORMER OECI SITE BOUNDARY
- FENCED AREA



TITLE: OCONOMOWOC ELECTROPLATING COMPANY, INC. SITE LAYOUT AND WELL LOCATIONS			
LOCATION: ASHIPPUN, WISCONSIN			
	CHECKED	MAM	FIGURE: 1
	DRAFTED	HJW	
	PROJECT	117-7413001	
DATE	12/5/14		

Groundwater Quality Data

	Date Sampled			10/31/2016 *
	Units	NR 140 ES	NR 140 PAL	PW-07
<u>VOCs</u>				
cis-1,2-Dichloroethene	µg/L	70.	7.	4.3
Methyl tert-butyl ether	µg/L	60.	12.	0.63
Tetrahydrofuran	µg/L	50.	10.	0.44 J
trans-1,2-Dichloroethene	µg/L	100.	20.	0.17
Vinyl chloride	µg/L	0.2	0.02	0.041 J

Notes:

µg/L = micrograms per liter, which is equivalent to parts per billion.

NR 140 ES = Wisconsin Department of Natural Resource Chapter NR 140 Enforcement Standard.

NR 140 PAL = Wisconsin Department of Natural Resource Chapter NR Preventive Action Limit.

Values in bold exceed the listed NR 140 PAL

***No ENFORCEMENT STANDARD has been attained or exceeded by these detected VOCs.**

Laboratory Quality Control Qualifiers

J: Estimated value.

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase:
 Project #: 117-7413001.01
 Folder #: 123362
 Purchase Order #:
 Contract #: 2747

Page 1 of 5
 Arrival Temperature: 4.9
 Report Date: 11/30/2016
 Date Received: 11/02/2016
 Reprint Date: 11/30/2016

CT LAB#: 798929 Sample Description: PW-07

DNR License/Well #: 4189/054

Sampled: 10/31/2016 1540

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Organic Results										
1,1,1,2-Tetrachloroethane	<0.040	ug/L	0.040	0.13	1	U	11/09/2016 21:07	11/09/2016 21:07	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.050	ug/L	0.050	0.17	1	U	11/09/2016 21:07	11/09/2016 21:07	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.017	ug/L	0.017	0.057	1	U	11/09/2016 21:07	11/09/2016 21:07	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.050	ug/L	0.050	0.16	1	U	11/09/2016 21:07	11/09/2016 21:07	RLD	EPA 8260C
1,1-Dichloroethane	<0.060	ug/L	0.060	0.19	1	U	11/09/2016 21:07	11/09/2016 21:07	RLD	EPA 8260C
1,1-Dichloroethene	<0.060	ug/L	0.060	0.20	1	U	11/09/2016 21:07	11/09/2016 21:07	RLD	EPA 8260C
1,1-Dichloropropene	<0.060	ug/L	0.060	0.19	1	U	11/09/2016 21:07	11/09/2016 21:07	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.040	ug/L	0.040	0.13	1	U	11/09/2016 21:07	11/09/2016 21:07	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.040	ug/L	0.040	0.14	1	U	11/09/2016 21:07	11/09/2016 21:07	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.040	ug/L	0.040	0.12	1	U	11/09/2016 21:07	11/09/2016 21:07	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.040	ug/L	0.040	0.12	1	U	11/09/2016 21:07	11/09/2016 21:07	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.090	ug/L	0.090	0.29	1	U	11/09/2016 21:07	11/09/2016 21:07	RLD	EPA 8260C
1,2-Dibromoethane	<0.070	ug/L	0.070	0.23	1	U	11/09/2016 21:07	11/09/2016 21:07	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U	11/09/2016 21:07	11/09/2016 21:07	RLD	EPA 8260C
1,2-Dichloroethane	<0.050	ug/L	0.050	0.18	1	U	11/09/2016 21:07	11/09/2016 21:07	RLD	EPA 8260C
1,2-Dichloropropane	<0.070	ug/L	0.070	0.23	1	U	11/09/2016 21:07	11/09/2016 21:07	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 798929 Sample Description:PW-07

DNR License/Well #: 4189/054

Sampled: 10/31/2016 1540

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,3,5-Trimethylbenzene	<0.050	ug/L	0.050	0.16	1	U		11/09/2016 21:07	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 21:07	RLD	EPA 8260C
1,3-Dichloropropane	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 21:07	RLD	EPA 8260C
1,4-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 21:07	RLD	EPA 8260C
2,2-Dichloropropane	<0.050	ug/L	0.050	0.15	1	U		11/09/2016 21:07	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.5	1	U		11/09/2016 21:07	RLD	EPA 8260C
2-Chlorotoluene	<0.030	ug/L	0.030	0.11	1	U		11/09/2016 21:07	RLD	EPA 8260C
2-Hexanone	<0.24	ug/L	0.24	0.81	1	U		11/09/2016 21:07	RLD	EPA 8260C
4-Chlorotoluene	<0.040	ug/L	0.040	0.12	1	U		11/09/2016 21:07	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.24	ug/L	0.24	0.82	1	U		11/09/2016 21:07	RLD	EPA 8260C
Acetone	<0.30	ug/L	0.30	1.0	1	U		11/09/2016 21:07	RLD	EPA 8260C
Benzene	<0.018	ug/L	0.018	0.059	1	U		11/09/2016 21:07	RLD	EPA 8260C
Bromobenzene	<0.040	ug/L	0.040	0.15	1	U		11/09/2016 21:07	RLD	EPA 8260C
Bromochloromethane	<0.030	ug/L	0.030	0.099	1	U		11/09/2016 21:07	RLD	EPA 8260C
Bromodichloromethane	<0.016	ug/L	0.016	0.054	1	U		11/09/2016 21:07	RLD	EPA 8260C
Bromoform	<0.040	ug/L	0.040	0.12	1	U		11/09/2016 21:07	RLD	EPA 8260C
Bromomethane	<0.080	ug/L	0.080	0.28	1	U Z		11/09/2016 21:07	RLD	EPA 8260C
Carbon disulfide	<0.070	ug/L	0.070	0.25	1	U		11/09/2016 21:07	RLD	EPA 8260C
Carbon tetrachloride	<0.050	ug/L	0.050	0.18	1	U		11/09/2016 21:07	RLD	EPA 8260C
Chlorobenzene	<0.040	ug/L	0.040	0.15	1	U		11/09/2016 21:07	RLD	EPA 8260C
Chloroethane	<0.070	ug/L	0.070	0.23	1	U		11/09/2016 21:07	RLD	EPA 8260C
Chloroform	<0.030	ug/L	0.030	0.11	1	U		11/09/2016 21:07	RLD	EPA 8260C
Chloromethane	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 21:07	RLD	EPA 8260C
cis-1,2-Dichloroethene	4.3	ug/L	0.070	0.23	1			11/09/2016 21:07	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.011	ug/L	0.011	0.038	1	U		11/09/2016 21:07	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1	U		11/09/2016 21:07	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 798929 Sample Description:PW-07

DNR License/Well #: 4189/054

Sampled: 10/31/2016 1540

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Dibromomethane	<0.050	ug/L	0.050	0.17	1	U		11/09/2016 21:07	RLD	EPA 8260C
Dichlorodifluoromethane	<0.060	ug/L	0.060	0.19	1	U		11/09/2016 21:07	RLD	EPA 8260C
Diisopropyl ether	<0.040	ug/L	0.040	0.14	1	U		11/09/2016 21:07	RLD	EPA 8260C
Ethylbenzene	<0.040	ug/L	0.040	0.15	1	U		11/09/2016 21:07	RLD	EPA 8260C
Hexachlorobutadiene	<0.050	ug/L	0.050	0.16	1	U		11/09/2016 21:07	RLD	EPA 8260C
Isopropylbenzene	<0.040	ug/L	0.040	0.12	1	U		11/09/2016 21:07	RLD	EPA 8260C
m & p-Xylene	<0.070	ug/L	0.070	0.23	1	U		11/09/2016 21:07	RLD	EPA 8260C
Methyl tert-butyl ether	0.63	ug/L	0.040	0.12	1			11/09/2016 21:07	RLD	EPA 8260C
Methylene chloride	<0.050	ug/L	0.050	0.16	1	U		11/09/2016 21:07	RLD	EPA 8260C
n-Butylbenzene	<0.030	ug/L	0.030	0.11	1	U		11/09/2016 21:07	RLD	EPA 8260C
n-Propylbenzene	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 21:07	RLD	EPA 8260C
Naphthalene	<0.030	ug/L	0.030	0.10	1	U		11/09/2016 21:07	RLD	EPA 8260C
o-Xylene	<0.040	ug/L	0.040	0.14	1	U		11/09/2016 21:07	RLD	EPA 8260C
p-Isopropyltoluene	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 21:07	RLD	EPA 8260C
sec-Butylbenzene	<0.050	ug/L	0.050	0.16	1	U		11/09/2016 21:07	RLD	EPA 8260C
Styrene	<0.030	ug/L	0.030	0.11	1	U		11/09/2016 21:07	RLD	EPA 8260C
tert-Butylbenzene	<0.040	ug/L	0.040	0.14	1	U		11/09/2016 21:07	RLD	EPA 8260C
Tetrachloroethene	<0.050	ug/L	0.050	0.18	1	U		11/09/2016 21:07	RLD	EPA 8260C
Tetrahydrofuran	0.44	ug/L	0.40	1.5	1	J		11/09/2016 21:07	RLD	EPA 8260C
Toluene	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 21:07	RLD	EPA 8260C
trans-1,2-Dichloroethene	0.17	ug/L	0.040	0.14	1			11/09/2016 21:07	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.019	ug/L	0.019	0.063	1	U		11/09/2016 21:07	RLD	EPA 8260C
Trichloroethene	<0.050	ug/L	0.050	0.17	1	U		11/09/2016 21:07	RLD	EPA 8260C
Trichlorofluoromethane	<0.090	ug/L	0.090	0.14	1	U		11/09/2016 21:07	RLD	EPA 8260C
Vinyl acetate	<0.22	ug/L	0.22	0.73	1	U		11/09/2016 21:07	RLD	EPA 8260C
Vinyl chloride	0.041	ug/L	0.019	0.064	1	J		11/09/2016 21:07	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 798929 Sample Description:PW-07

DNR License/Well #: 4189/054

Sampled: 10/31/2016 1540

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,4-Dioxane	<7.0	ug/L	7.0	23	1	U		11/09/2016 21:07	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications
Kansas NELAP ID# E-10368
Kentucky ID# 0023
ISO/IEC 17025-2005 A2LA Cert # 3806.01
North Carolina ID# 674
Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID E8711111, Expires Annually
Louisiana ID # 115843
Virginia ID# 7608
Illinois NELAP ID # 002413
Wisconsin (WOSB) ID# WI-5499-WBE
Maryland ID# 344

Notice: This form may be used to comply with the requirements of s. NR 716.14 (2), Wis. Adm. Code; however, use of this form is not required. An alternate format may be used. The rule requires that notification be provided to 1) property owners when someone else is conducting the sampling, 2) to occupants of property belonging to the responsible person, and 3) to owners and occupants of property that does not belong to the responsible person but has been affected by contamination arising on his or her property. Notification is required within 10 business days of receiving the sample results. Personal information collected will be used for program administration and may be provided to requesters to the extent required by Wisconsin's Open Records law [ss. 19.31-19.39, Wis. Stats.].

NOTE: Under s. NR 716.14, Wis. Adm. Code, the responsible party must also submit sample results and other required information to the DNR. We recommend that copies of the sample results notifications be included with that submittal, along with all attachments. Using the same format used for data presentation for a closure request may be helpful to all parties. See s. NR 716.14, Wis. Adm. Code for the full list of information to be submitted to the DNR.

Notification of Property Owners and Occupants:

This notification form has been provided to you in order to provide the results of environmental sampling that has been conducted on property that you own or occupy. Samples were collected in accordance with the methods identified in the site investigation work plan, in accordance with s. NR. 716.09 and 716.13, Wis. Adm. Code. This sampling was conducted as a result of contamination originating at the following location.

Site Information

Site Name		DNR ID # (BRRTS #)	
Oconomowoc Electroplating Company, Inc. (OECI) Superfund Site		02-14-000905	
Address	City	State	ZIP Code
W2573 Oak Street	Ashippun	WI	53003

Responsible Party

The person(s) responsible for completing this environmental investigation is:

Property Owner

Oconomowoc Electroplating Company, Inc.

Address	City	State	ZIP Code
W2573 Oak Street	Ashippun	WI	53003
Contact Person	Phone Number (include area code)		
William Ryan (US EPA RPM), Aristco Pelayo (WDNR PM)	(608) 767-3539		

Person or company that collected samples

Ashley Kowalewski, Tetra Tech, Inc.

Sample Results (Results Attached)

Reason for Sampling: Routine Other (define) _____

The contaminants that have been identified at this time on property that you own or occupy include:

Contaminant	In Soil?		In Groundwater?	
	Yes	No	Yes	No
Gasoline	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Diesel or Fuel Oil	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Solvents	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Heavy Metals	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Pesticides	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Other: _____	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

This sampling event included sampling of a drinking water well. <input checked="" type="radio"/> Yes <input type="radio"/> No
If yes, the sampled drinking water well had detectable contaminants. <input checked="" type="radio"/> Yes <input type="radio"/> No

Contaminants in Vapor

	Yes	No
Indoor Air	<input type="radio"/>	<input checked="" type="radio"/>
Sub-slab	<input type="radio"/>	<input checked="" type="radio"/>
Exterior Soil Gas	<input type="radio"/>	<input checked="" type="radio"/>

Site Investigation Sample Results Notification

Form 4400-249 (R 03/14)

Page 2 of 2

Attached are:

- A map that shows the locations from which samples were collected. (The map needs to meet the requirements of s. NR 716.15 (4), Wis. Adm. Code.)
- A data table with specific contaminant levels at each sample location and whether or not the sample results exceed state standards.
- A copy of the laboratory results.

You are not identified as the person that is responsible for this contamination. However, your cooperation is important. Property owners may become legally responsible for contamination if they do not allow access to the person that is responsible so that person may complete the environmental investigation and clean up activities.

Option for written exemption: You have the option of requesting a written liability exemption from the DNR for contamination that originated on another property, or on property that you lease. To do this, you must present an adequate environmental assessment of your property and pay a \$700 fee for review of this information. If you are interested in this option, please see DNR publication # RR 589, "When Contamination Crosses a Property Line - Rights and Responsibilities of Property Owners", available at: dnr.wi.gov/files/PDF/pubs/rr/rr589.pdf.

Contact Information

Please address questions regarding this notification, or requests for additional information to the contact person listed above, or to one of the following contacts:

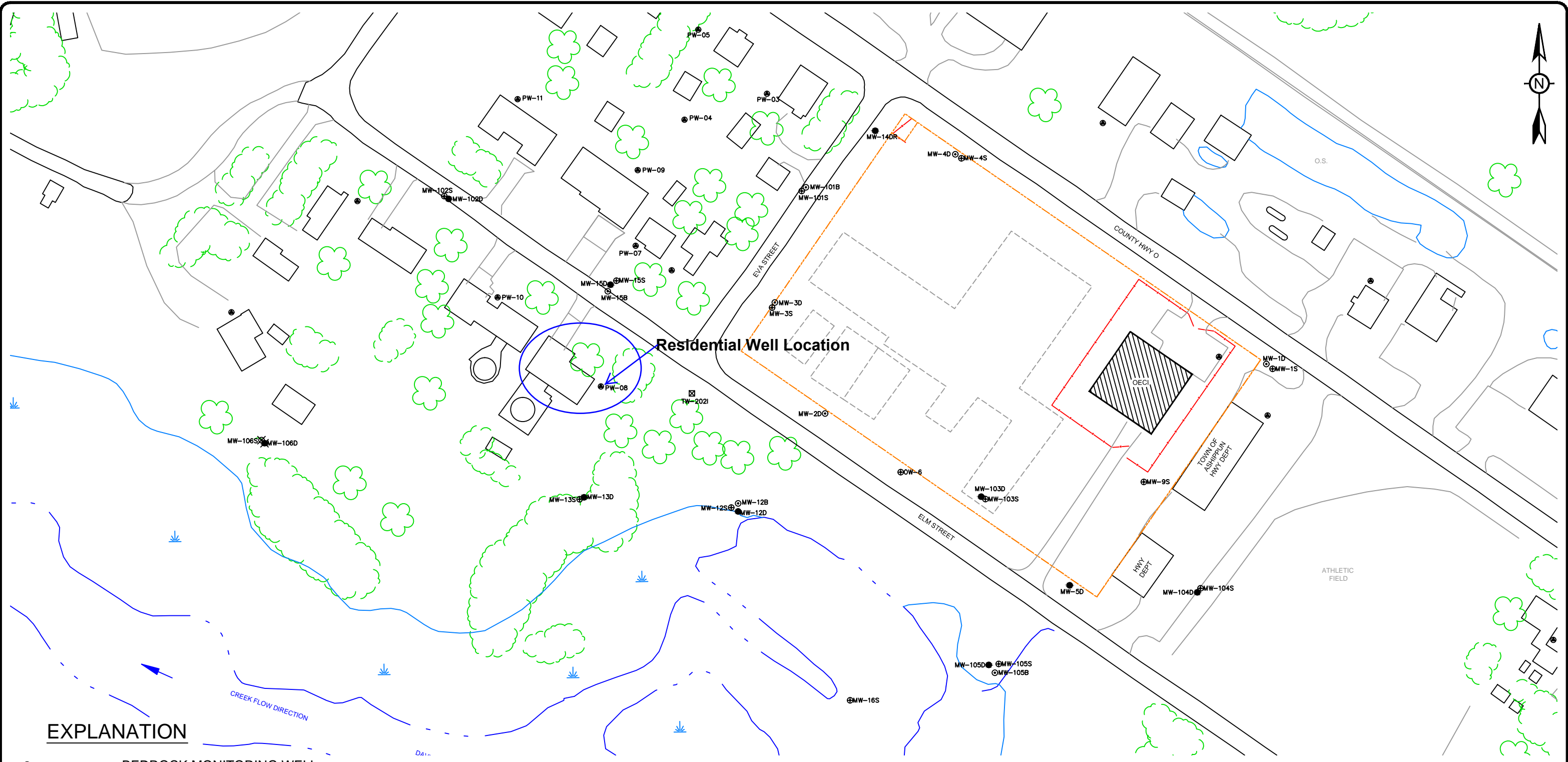
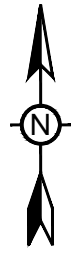
Environmental Consultant

Company Name		Contact Person Last Name	First Name	
Tetra Tech		Manthey	Mark	
Address		City	State	ZIP Code
175 N. Corporate Drive, Suite 100		Brookfield	WI	53045
Phone # (inc. area code)	Email			
(262) 792-1282	Mark.Manthey@tetrattech.com			

Select which agency: Natural Resources Agriculture, Trade and Consumer Protection

State of Wisconsin Department of Natural Resources

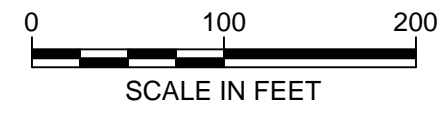
Contact Person Last Name		First Name	Phone # (inc. area code)	
Pelayo		Aristeo	(608) 267-3539	
Address		City	State	ZIP Code
101 S. Webster St., P.O. Box 7921		Madison	WI	53707-7921
Email				
aristeo.pelayo@wisconsin.gov				



Residential Well Location

EXPLANATION

- ⊙MW-105B BEDROCK MONITORING WELL
- MW-105D DEEP UNCONSOLIDATED MONITORING WELL
- ⊕MW-105S SHALLOW UNCONSOLIDATED MONITORING WELL
- PW-11 RESIDENTIAL WELL
- ⊗MW-106D DEEP UNCONSOLIDATED SENTINEL WELL
- ⊗MW-106S SHALLOW UNCONSOLIDATED SENTINEL WELL
- ⊠TW-2021 TEMPORARY WELL
- FORMER OECI SITE BOUNDARY
- FENCED AREA



TITLE: OCONOMOWOC ELECTROPLATING COMPANY, INC. SITE LAYOUT AND WELL LOCATIONS			
LOCATION: ASHIPPUN, WISCONSIN			
	CHECKED	MAM	FIGURE: 1
	DRAFTED	HJW	
	PROJECT	117-7413001	
DATE	12/5/14		

Groundwater Quality Data

	Date Sampled			10/31/2016 *
	Units	NR 140 ES	NR 140 PAL	PW-08
<u>VOCs</u>				
cis-1,2-Dichloroethene	µg/L	70.	7.	2.3
Methyl tert-butyl ether	µg/L	60.	12.	0.67
trans-1,2-Dichloroethene	µg/L	100.	20.	0.12 J
Trichloroethene	µg/L	5.	0.5	0.11 J

Notes:

µg/L = micrograms per liter, which is equivalent to parts per billion.

NR 140 ES = Wisconsin Department of Natural Resource Chapter NR 140 Enforcement Standard.

NR 140 PAL = Wisconsin Department of Natural Resource Chapter NR Preventive Action Limit.

Values in bold exceed the listed NR 140 PAL

***No ENFORCEMENT STANDARD has been attained or exceeded by these detected VOCs.**

Laboratory Quality Control Qualifiers

J: Estimated value.

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase:
 Project #: 117-7413001.01
 Folder #: 123362
 Purchase Order #:
 Contract #: 2747

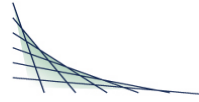
Page 1 of 5
 Arrival Temperature: 4.9
 Report Date: 11/30/2016
 Date Received: 11/02/2016
 Reprint Date: 11/30/2016

CT LAB#: 798927 Sample Description: PW-08

DNR License/Well #: 4189/055 Sampled: 10/31/2016 1420

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Organic Results										
1,1,1,2-Tetrachloroethane	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 20:09	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.050	ug/L	0.050	0.17	1	U		11/09/2016 20:09	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.017	ug/L	0.017	0.057	1	U		11/09/2016 20:09	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.050	ug/L	0.050	0.16	1	U		11/09/2016 20:09	RLD	EPA 8260C
1,1-Dichloroethane	<0.060	ug/L	0.060	0.19	1	U		11/09/2016 20:09	RLD	EPA 8260C
1,1-Dichloroethene	<0.060	ug/L	0.060	0.20	1	U		11/09/2016 20:09	RLD	EPA 8260C
1,1-Dichloropropene	<0.060	ug/L	0.060	0.19	1	U		11/09/2016 20:09	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 20:09	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.040	ug/L	0.040	0.14	1	U		11/09/2016 20:09	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.040	ug/L	0.040	0.12	1	U		11/09/2016 20:09	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.040	ug/L	0.040	0.12	1	U		11/09/2016 20:09	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.090	ug/L	0.090	0.29	1	U		11/09/2016 20:09	RLD	EPA 8260C
1,2-Dibromoethane	<0.070	ug/L	0.070	0.23	1	U		11/09/2016 20:09	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 20:09	RLD	EPA 8260C
1,2-Dichloroethane	<0.050	ug/L	0.050	0.18	1	U		11/09/2016 20:09	RLD	EPA 8260C
1,2-Dichloropropane	<0.070	ug/L	0.070	0.23	1	U		11/09/2016 20:09	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis



CT LAB#: 798927 Sample Description:PW-08

DNR License/Well #: 4189/055

Sampled: 10/31/2016 1420

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,3,5-Trimethylbenzene	<0.050	ug/L	0.050	0.16	1	U		11/09/2016 20:09	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 20:09	RLD	EPA 8260C
1,3-Dichloropropane	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 20:09	RLD	EPA 8260C
1,4-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 20:09	RLD	EPA 8260C
2,2-Dichloropropane	<0.050	ug/L	0.050	0.15	1	U		11/09/2016 20:09	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.5	1	U		11/09/2016 20:09	RLD	EPA 8260C
2-Chlorotoluene	<0.030	ug/L	0.030	0.11	1	U		11/09/2016 20:09	RLD	EPA 8260C
2-Hexanone	<0.24	ug/L	0.24	0.81	1	U		11/09/2016 20:09	RLD	EPA 8260C
4-Chlorotoluene	<0.040	ug/L	0.040	0.12	1	U		11/09/2016 20:09	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.24	ug/L	0.24	0.82	1	U		11/09/2016 20:09	RLD	EPA 8260C
Acetone	<0.30	ug/L	0.30	1.0	1	U		11/09/2016 20:09	RLD	EPA 8260C
Benzene	<0.018	ug/L	0.018	0.059	1	U		11/09/2016 20:09	RLD	EPA 8260C
Bromobenzene	<0.040	ug/L	0.040	0.15	1	U		11/09/2016 20:09	RLD	EPA 8260C
Bromochloromethane	<0.030	ug/L	0.030	0.099	1	U		11/09/2016 20:09	RLD	EPA 8260C
Bromodichloromethane	<0.016	ug/L	0.016	0.054	1	U		11/09/2016 20:09	RLD	EPA 8260C
Bromoform	<0.040	ug/L	0.040	0.12	1	U		11/09/2016 20:09	RLD	EPA 8260C
Bromomethane	<0.080	ug/L	0.080	0.28	1	U Z		11/09/2016 20:09	RLD	EPA 8260C
Carbon disulfide	<0.070	ug/L	0.070	0.25	1	U		11/09/2016 20:09	RLD	EPA 8260C
Carbon tetrachloride	<0.050	ug/L	0.050	0.18	1	U		11/09/2016 20:09	RLD	EPA 8260C
Chlorobenzene	<0.040	ug/L	0.040	0.15	1	U		11/09/2016 20:09	RLD	EPA 8260C
Chloroethane	<0.070	ug/L	0.070	0.23	1	U		11/09/2016 20:09	RLD	EPA 8260C
Chloroform	<0.030	ug/L	0.030	0.11	1	U		11/09/2016 20:09	RLD	EPA 8260C
Chloromethane	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 20:09	RLD	EPA 8260C
cis-1,2-Dichloroethene	2.3	ug/L	0.070	0.23	1			11/09/2016 20:09	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.011	ug/L	0.011	0.038	1	U		11/09/2016 20:09	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1	U		11/09/2016 20:09	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

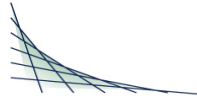
CT LAB#: 798927 Sample Description:PW-08

DNR License/Well #: 4189/055

Sampled: 10/31/2016 1420

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Dibromomethane	<0.050	ug/L	0.050	0.17	1	U		11/09/2016 20:09	RLD	EPA 8260C
Dichlorodifluoromethane	<0.060	ug/L	0.060	0.19	1	U		11/09/2016 20:09	RLD	EPA 8260C
Diisopropyl ether	<0.040	ug/L	0.040	0.14	1	U		11/09/2016 20:09	RLD	EPA 8260C
Ethylbenzene	<0.040	ug/L	0.040	0.15	1	U		11/09/2016 20:09	RLD	EPA 8260C
Hexachlorobutadiene	<0.050	ug/L	0.050	0.16	1	U		11/09/2016 20:09	RLD	EPA 8260C
Isopropylbenzene	<0.040	ug/L	0.040	0.12	1	U		11/09/2016 20:09	RLD	EPA 8260C
m & p-Xylene	<0.070	ug/L	0.070	0.23	1	U		11/09/2016 20:09	RLD	EPA 8260C
Methyl tert-butyl ether	0.67	ug/L	0.040	0.12	1			11/09/2016 20:09	RLD	EPA 8260C
Methylene chloride	<0.050	ug/L	0.050	0.16	1	U		11/09/2016 20:09	RLD	EPA 8260C
n-Butylbenzene	<0.030	ug/L	0.030	0.11	1	U		11/09/2016 20:09	RLD	EPA 8260C
n-Propylbenzene	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 20:09	RLD	EPA 8260C
Naphthalene	<0.030	ug/L	0.030	0.10	1	U		11/09/2016 20:09	RLD	EPA 8260C
o-Xylene	<0.040	ug/L	0.040	0.14	1	U		11/09/2016 20:09	RLD	EPA 8260C
p-Isopropyltoluene	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 20:09	RLD	EPA 8260C
sec-Butylbenzene	<0.050	ug/L	0.050	0.16	1	U		11/09/2016 20:09	RLD	EPA 8260C
Styrene	<0.030	ug/L	0.030	0.11	1	U		11/09/2016 20:09	RLD	EPA 8260C
tert-Butylbenzene	<0.040	ug/L	0.040	0.14	1	U		11/09/2016 20:09	RLD	EPA 8260C
Tetrachloroethene	<0.050	ug/L	0.050	0.18	1	U		11/09/2016 20:09	RLD	EPA 8260C
Tetrahydrofuran	<0.40	ug/L	0.40	1.5	1	U		11/09/2016 20:09	RLD	EPA 8260C
Toluene	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 20:09	RLD	EPA 8260C
trans-1,2-Dichloroethene	0.12	ug/L	0.040	0.14	1	J		11/09/2016 20:09	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.019	ug/L	0.019	0.063	1	U		11/09/2016 20:09	RLD	EPA 8260C
Trichloroethene	0.11	ug/L	0.050	0.17	1	J		11/09/2016 20:09	RLD	EPA 8260C
Trichlorofluoromethane	<0.090	ug/L	0.090	0.14	1	U		11/09/2016 20:09	RLD	EPA 8260C
Vinyl acetate	<0.22	ug/L	0.22	0.73	1	U		11/09/2016 20:09	RLD	EPA 8260C
Vinyl chloride	<0.019	ug/L	0.019	0.064	1	U		11/09/2016 20:09	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis



TETRA TECH
 Project Name: OCONOMOWOC ELECTROPLATING
 Project #: 117-7413001.01
 Project Phase:

Contract #: 2747
 Folder #: 123362
 Page 4 of 5

CT LAB#: 798927 Sample Description:PW-08

DNR License/Well #: 4189/055

Sampled: 10/31/2016 1420

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,4-Dioxane	<7.0	ug/L	7.0	23	1	U M		11/09/2016 20:09	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications
Kansas NELAP ID# E-10368
Kentucky ID# 0023
ISO/IEC 17025-2005 A2LA Cert # 3806.01
North Carolina ID# 674
Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID E871111, Expires Annually
Louisiana ID # 115843
Virginia ID# 7608
Illinois NELAP ID # 002413
Wisconsin (WOSB) ID# WI-5499-WBE
Maryland ID# 344

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NOTE: Under s. NR 716.14, Wis. Adm. Code, the responsible party must also submit sample results and other required information to the DNR. We recommend that copies of the sample results notifications be included with that submittal, along with all attachments. Using the same format used for data presentation for a closure request may be helpful to all parties. See s. NR 716.14, Wis. Adm. Code for the full list of information to be submitted to the DNR.

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This notification form has been provided to you in order to provide the results of environmental sampling that has been conducted on property that you own or occupy. Samples were collected in accordance with the methods identified in the site investigation work plan, in accordance with s. NR. 716.09 and 716.13, Wis. Adm. Code. This sampling was conducted as a result of contamination originating at the following location.

Site Information

Site Name		DNR ID # (BRRTS #)	
Oconomowoc Electroplating Company, Inc. (OECI) Superfund Site		02-14-000905	
Address	City	State	ZIP Code
W2573 Oak Street	Ashippun	WI	53003

Responsible Party

The person(s) responsible for completing this environmental investigation is:

Property Owner

Oconomowoc Electroplating Company, Inc.

Address	City	State	ZIP Code
W2573 Oak Street	Ashippun	WI	53003
Contact Person	Phone Number (include area code)		
William Ryan (US EPA RPM), Aristco Pelayo (WDNR PM)	(608) 767-3539		

Person or company that collected samples

Ashley Kowalewski, Tetra Tech, Inc.

Sample Results (Results Attached)

Reason for Sampling: Routine Other (define) _____

The contaminants that have been identified at this time on property that you own or occupy include:

Contaminant	In Soil?		In Groundwater?	
	Yes	No	Yes	No
Gasoline	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Diesel or Fuel Oil	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Solvents	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Heavy Metals	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Pesticides	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Other: _____	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

This sampling event included sampling of a drinking water well. <input checked="" type="radio"/> Yes <input type="radio"/> No
--

If yes, the sampled drinking water well had detectable contaminants. <input checked="" type="radio"/> Yes <input type="radio"/> No

Contaminants in Vapor

	Yes	No
Indoor Air	<input type="radio"/>	<input checked="" type="radio"/>
Sub-slab	<input type="radio"/>	<input checked="" type="radio"/>
Exterior Soil Gas	<input type="radio"/>	<input checked="" type="radio"/>

Site Investigation Sample Results Notification

Form 4400-249 (R 03/14)

Page 2 of 2

Attached are:

- A map that shows the locations from which samples were collected. (The map needs to meet the requirements of s. NR 716.15 (4), Wis. Adm. Code.)
- A data table with specific contaminant levels at each sample location and whether or not the sample results exceed state standards.
- A copy of the laboratory results.

You are not identified as the person that is responsible for this contamination. However, your cooperation is important. Property owners may become legally responsible for contamination if they do not allow access to the person that is responsible so that person may complete the environmental investigation and clean up activities.

Option for written exemption: You have the option of requesting a written liability exemption from the DNR for contamination that originated on another property, or on property that you lease. To do this, you must present an adequate environmental assessment of your property and pay a \$700 fee for review of this information. If you are interested in this option, please see DNR publication # RR 589, "When Contamination Crosses a Property Line - Rights and Responsibilities of Property Owners", available at: dnr.wi.gov/files/PDF/pubs/rr/rr589.pdf.

Contact Information

Please address questions regarding this notification, or requests for additional information to the contact person listed above, or to one of the following contacts:

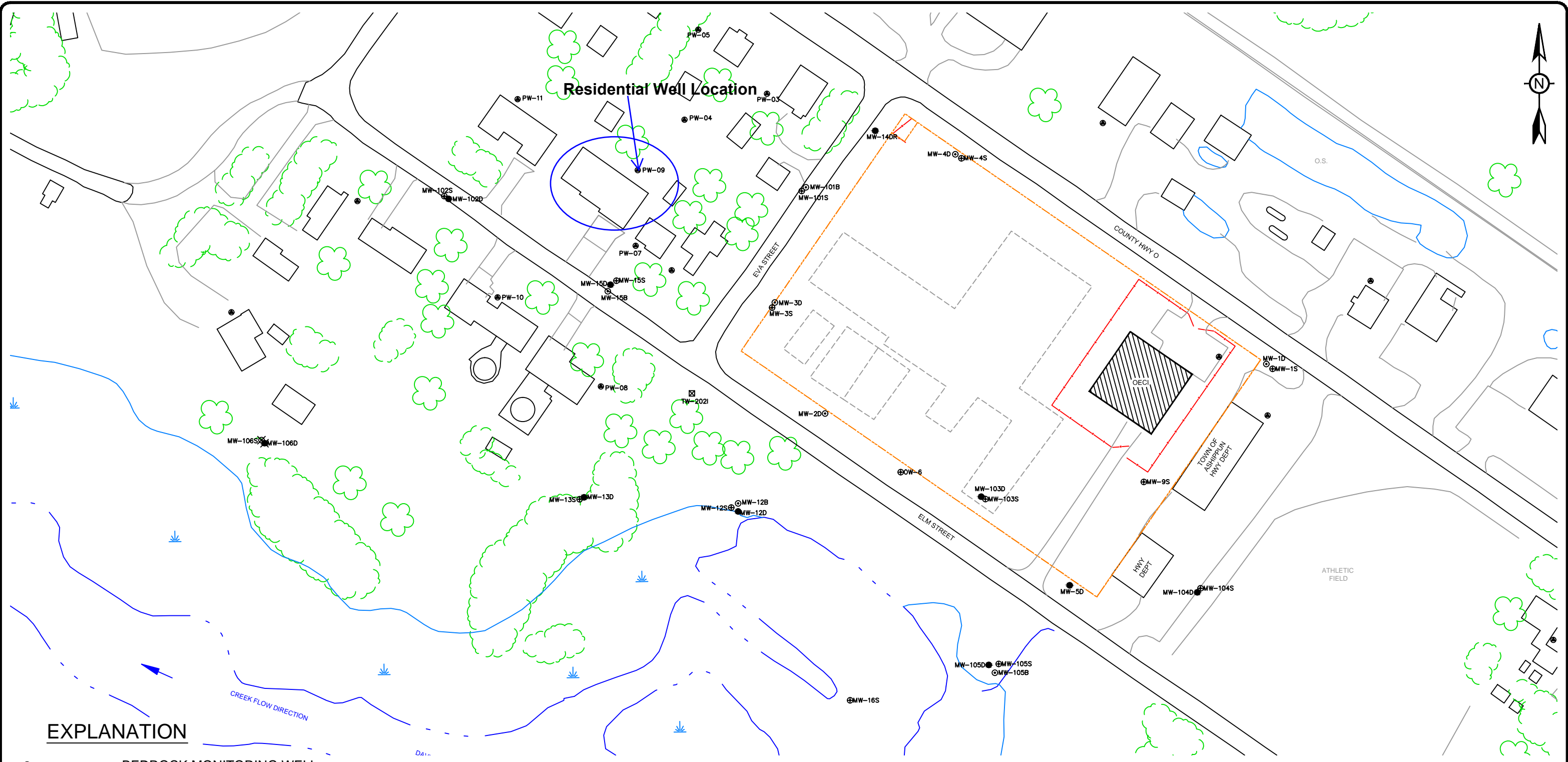
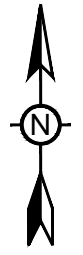
Environmental Consultant

Company Name		Contact Person Last Name		First Name	
Tetra Tech		Manthey		Mark	
Address			City	State	ZIP Code
175 N. Corporate Drive, Suite 100			Brookfield	WI	53045
Phone # (inc. area code)	Email				
(262) 792-1282	Mark.Manthey@tetrattech.com				

Select which agency: Natural Resources Agriculture, Trade and Consumer Protection

State of Wisconsin Department of Natural Resources

Contact Person Last Name		First Name		Phone # (inc. area code)	
Pelayo		Aristeo		(608) 267-3539	
Address			City	State	ZIP Code
101 S. Webster St., P.O. Box 7921			Madison	WI	53707-7921
Email					
aristeo.pelayo@wisconsin.gov					



EXPLANATION

- ⊙MW-105B BEDROCK MONITORING WELL
- MW-105D DEEP UNCONSOLIDATED MONITORING WELL
- ⊕MW-105S SHALLOW UNCONSOLIDATED MONITORING WELL
- PW-11 RESIDENTIAL WELL
- ⊗MW-106D DEEP UNCONSOLIDATED SENTINEL WELL
- ⊗MW-106S SHALLOW UNCONSOLIDATED SENTINEL WELL
- ⊠TW-2021 TEMPORARY WELL
- FORMER OECI SITE BOUNDARY
- FENCED AREA



TITLE: OCONOMOWOC ELECTROPLATING COMPANY, INC. SITE LAYOUT AND WELL LOCATIONS			
LOCATION: ASHIPUN, WISCONSIN			
	CHECKED	MAM	FIGURE: 1
	DRAFTED	HJW	
	PROJECT	117-7413001	
	DATE	12/5/14	

Groundwater Quality Data

	Date Sampled			11/2/2016 *
	Units	NR 140 ES	NR 140 PAL	PW-09
VOCs				
Benzene	µg/L	5.	0.5	0.025 J
cis-1,2-Dichloroethene	µg/L	70.	7.	5.3
Methyl tert-butyl ether	µg/L	60.	12.	0.65
Toluene	µg/L	800.	160.	0.13 J
trans-1,2-Dichloroethene	µg/L	100.	20.	0.22
Trichloroethene	µg/L	5.	0.5	0.066 J

Notes:

µg/L = micrograms per liter, which is equivalent to parts per billion.

NR 140 ES = Wisconsin Department of Natural Resource Chapter NR 140 Enforcement Standard.

NR 140 PAL = Wisconsin Department of Natural Resource Chapter NR Preventive Action Limit.

Values in bold exceed the listed NR 140 PAL

***No ENFORCEMENT STANDARD has been attained or exceeded by these detected VOCs.**

Laboratory Quality Control Qualifiers

J: Estimated value.

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase:
 Project #: 117-7413001.01
 Folder #: 123409
 Purchase Order #:
 Contract #: 2747

Page 1 of 5
 Arrival Temperature: 1.1
 Report Date: 11/30/2016
 Date Received: 11/03/2016
 Reprint Date: 11/30/2016

CT LAB#: 800068 Sample Description: PW-09

DNR License/Well #: 4189/056

Sampled: 11/02/2016 0935

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Organic Results										
1,1,1,2-Tetrachloroethane	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 09:40	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.050	ug/L	0.050	0.17	1	U		11/10/2016 09:40	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.017	ug/L	0.017	0.057	1	U		11/10/2016 09:40	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.050	ug/L	0.050	0.16	1	U		11/10/2016 09:40	RLD	EPA 8260C
1,1-Dichloroethane	<0.060	ug/L	0.060	0.19	1	U		11/10/2016 09:40	RLD	EPA 8260C
1,1-Dichloroethene	<0.060	ug/L	0.060	0.20	1	U		11/10/2016 09:40	RLD	EPA 8260C
1,1-Dichloropropene	<0.060	ug/L	0.060	0.19	1	U		11/10/2016 09:40	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 09:40	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.040	ug/L	0.040	0.14	1	U		11/10/2016 09:40	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.040	ug/L	0.040	0.12	1	U		11/10/2016 09:40	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.040	ug/L	0.040	0.12	1	U		11/10/2016 09:40	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.090	ug/L	0.090	0.29	1	U		11/10/2016 09:40	RLD	EPA 8260C
1,2-Dibromoethane	<0.070	ug/L	0.070	0.23	1	U		11/10/2016 09:40	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 09:40	RLD	EPA 8260C
1,2-Dichloroethane	<0.050	ug/L	0.050	0.18	1	U		11/10/2016 09:40	RLD	EPA 8260C
1,2-Dichloropropane	<0.070	ug/L	0.070	0.23	1	U		11/10/2016 09:40	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 800068 Sample Description:PW-09

DNR License/Well #: 4189/056

Sampled: 11/02/2016 0935

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,3,5-Trimethylbenzene	<0.050	ug/L	0.050	0.16	1	U		11/10/2016 09:40	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 09:40	RLD	EPA 8260C
1,3-Dichloropropane	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 09:40	RLD	EPA 8260C
1,4-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 09:40	RLD	EPA 8260C
2,2-Dichloropropane	<0.050	ug/L	0.050	0.15	1	U		11/10/2016 09:40	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.5	1	U		11/10/2016 09:40	RLD	EPA 8260C
2-Chlorotoluene	<0.030	ug/L	0.030	0.11	1	U		11/10/2016 09:40	RLD	EPA 8260C
2-Hexanone	<0.24	ug/L	0.24	0.81	1	U		11/10/2016 09:40	RLD	EPA 8260C
4-Chlorotoluene	<0.040	ug/L	0.040	0.12	1	U		11/10/2016 09:40	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.24	ug/L	0.24	0.82	1	U		11/10/2016 09:40	RLD	EPA 8260C
Acetone	<0.30	ug/L	0.30	1.0	1	U		11/10/2016 09:40	RLD	EPA 8260C
Benzene	0.025	ug/L	0.018	0.059	1	J		11/10/2016 09:40	RLD	EPA 8260C
Bromobenzene	<0.040	ug/L	0.040	0.15	1	U		11/10/2016 09:40	RLD	EPA 8260C
Bromochloromethane	<0.030	ug/L	0.030	0.099	1	U		11/10/2016 09:40	RLD	EPA 8260C
Bromodichloromethane	<0.016	ug/L	0.016	0.054	1	U		11/10/2016 09:40	RLD	EPA 8260C
Bromoform	<0.040	ug/L	0.040	0.12	1	U Z		11/10/2016 09:40	RLD	EPA 8260C
Bromomethane	<0.080	ug/L	0.080	0.28	1	U M		11/10/2016 09:40	RLD	EPA 8260C
Carbon disulfide	<0.070	ug/L	0.070	0.25	1	U		11/10/2016 09:40	RLD	EPA 8260C
Carbon tetrachloride	<0.050	ug/L	0.050	0.18	1	U		11/10/2016 09:40	RLD	EPA 8260C
Chlorobenzene	<0.040	ug/L	0.040	0.15	1	U		11/10/2016 09:40	RLD	EPA 8260C
Chloroethane	<0.070	ug/L	0.070	0.23	1	U		11/10/2016 09:40	RLD	EPA 8260C
Chloroform	<0.030	ug/L	0.030	0.11	1	U		11/10/2016 09:40	RLD	EPA 8260C
Chloromethane	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 09:40	RLD	EPA 8260C
cis-1,2-Dichloroethene	5.3	ug/L	0.070	0.23	1			11/10/2016 09:40	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.011	ug/L	0.011	0.038	1	U		11/10/2016 09:40	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1	U		11/10/2016 09:40	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 800068 Sample Description:PW-09

DNR License/Well #: 4189/056

Sampled: 11/02/2016 0935

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Dibromomethane	<0.050	ug/L	0.050	0.17	1	U		11/10/2016 09:40	RLD	EPA 8260C
Dichlorodifluoromethane	<0.060	ug/L	0.060	0.19	1	U		11/10/2016 09:40	RLD	EPA 8260C
Diisopropyl ether	<0.040	ug/L	0.040	0.14	1	U		11/10/2016 09:40	RLD	EPA 8260C
Ethylbenzene	<0.040	ug/L	0.040	0.15	1	U		11/10/2016 09:40	RLD	EPA 8260C
Hexachlorobutadiene	<0.050	ug/L	0.050	0.16	1	U		11/10/2016 09:40	RLD	EPA 8260C
Isopropylbenzene	<0.040	ug/L	0.040	0.12	1	U		11/10/2016 09:40	RLD	EPA 8260C
m & p-Xylene	<0.070	ug/L	0.070	0.23	1	U		11/10/2016 09:40	RLD	EPA 8260C
Methyl tert-butyl ether	0.65	ug/L	0.040	0.12	1			11/10/2016 09:40	RLD	EPA 8260C
Methylene chloride	<0.050	ug/L	0.050	0.16	1	U		11/10/2016 09:40	RLD	EPA 8260C
n-Butylbenzene	<0.030	ug/L	0.030	0.11	1	U		11/10/2016 09:40	RLD	EPA 8260C
n-Propylbenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 09:40	RLD	EPA 8260C
Naphthalene	<0.030	ug/L	0.030	0.10	1	U		11/10/2016 09:40	RLD	EPA 8260C
o-Xylene	<0.040	ug/L	0.040	0.14	1	U		11/10/2016 09:40	RLD	EPA 8260C
p-Isopropyltoluene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 09:40	RLD	EPA 8260C
sec-Butylbenzene	<0.050	ug/L	0.050	0.16	1	U		11/10/2016 09:40	RLD	EPA 8260C
Styrene	<0.030	ug/L	0.030	0.11	1	U		11/10/2016 09:40	RLD	EPA 8260C
tert-Butylbenzene	<0.040	ug/L	0.040	0.14	1	U		11/10/2016 09:40	RLD	EPA 8260C
Tetrachloroethene	<0.050	ug/L	0.050	0.18	1	U		11/10/2016 09:40	RLD	EPA 8260C
Tetrahydrofuran	<0.40	ug/L	0.40	1.5	1	U		11/10/2016 09:40	RLD	EPA 8260C
Toluene	0.13	ug/L	0.040	0.13	1			11/10/2016 09:40	RLD	EPA 8260C
trans-1,2-Dichloroethene	0.22	ug/L	0.040	0.14	1			11/10/2016 09:40	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.019	ug/L	0.019	0.063	1	U		11/10/2016 09:40	RLD	EPA 8260C
Trichloroethene	0.066	ug/L	0.050	0.17	1	J		11/10/2016 09:40	RLD	EPA 8260C
Trichlorofluoromethane	<0.090	ug/L	0.090	0.14	1	U		11/10/2016 09:40	RLD	EPA 8260C
Vinyl acetate	<0.22	ug/L	0.22	0.73	1	U		11/10/2016 09:40	RLD	EPA 8260C
Vinyl chloride	<0.019	ug/L	0.019	0.064	1	U		11/10/2016 09:40	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 800068 Sample Description:PW-09

DNR License/Well #: 4189/056

Sampled: 11/02/2016 0935

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,4-Dioxane	<7.0	ug/L	7.0	23	1	U		11/10/2016 09:40	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications
Kansas NELAP ID# E-10368
Kentucky ID# 0023
ISO/IEC 17025-2005 A2LA Cert # 3806.01
North Carolina ID# 674
Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID E871111, Expires Annually
Louisiana ID # 115843
Virginia ID# 7608
Illinois NELAP ID # 002413
Wisconsin (WOSB) ID# WI-5499-WBE
Maryland ID# 344

Notice: This form may be used to comply with the requirements of s. NR 716.14 (2), Wis. Adm. Code; however, use of this form is not required. An alternate format may be used. The rule requires that notification be provided to 1) property owners when someone else is conducting the sampling, 2) to occupants of property belonging to the responsible person, and 3) to owners and occupants of property that does not belong to the responsible person but has been affected by contamination arising on his or her property. Notification is required within 10 business days of receiving the sample results. Personal information collected will be used for program administration and may be provided to requesters to the extent required by Wisconsin's Open Records law [ss. 19.31-19.39, Wis. Stats.].

NOTE: Under s. NR 716.14, Wis. Adm. Code, the responsible party must also submit sample results and other required information to the DNR. We recommend that copies of the sample results notifications be included with that submittal, along with all attachments. Using the same format used for data presentation for a closure request may be helpful to all parties. See s. NR 716.14, Wis. Adm. Code for the full list of information to be submitted to the DNR.

Notification of Property Owners and Occupants:

This notification form has been provided to you in order to provide the results of environmental sampling that has been conducted on property that you own or occupy. Samples were collected in accordance with the methods identified in the site investigation work plan, in accordance with s. NR. 716.09 and 716.13, Wis. Adm. Code. This sampling was conducted as a result of contamination originating at the following location.

Site Information

Site Name		DNR ID # (BRRTS #)	
Oconomowoc Electroplating Company, Inc. (OECI) Superfund Site		02-14-000905	
Address	City	State	ZIP Code
W2573 Oak Street	Ashippun	WI	53003

Responsible Party

The person(s) responsible for completing this environmental investigation is:

Property Owner

Oconomowoc Electroplating Company, Inc.

Address	City	State	ZIP Code
W2573 Oak Street	Ashippun	WI	53003
Contact Person	Phone Number (include area code)		
William Ryan (US EPA RPM), Aristeo Pelayo (WDNR PM)	(608) 767-3539		

Person or company that collected samples

Ashley Kowalewski, Tetra Tech, Inc.

Sample Results (Results Attached)

Reason for Sampling: Routine Other (define) _____

The contaminants that have been identified at this time on property that you own or occupy include:

Contaminant	In Soil?		In Groundwater?	
	Yes	No	Yes	No
Gasoline	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Diesel or Fuel Oil	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Solvents	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Heavy Metals	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Pesticides	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Other: _____	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

This sampling event included sampling of a drinking water well. <input checked="" type="radio"/> Yes <input type="radio"/> No
--

If yes, the sampled drinking water well had detectable contaminants. <input checked="" type="radio"/> Yes <input type="radio"/> No

Contaminants in Vapor

	Yes	No
Indoor Air	<input type="radio"/>	<input checked="" type="radio"/>
Sub-slab	<input type="radio"/>	<input checked="" type="radio"/>
Exterior Soil Gas	<input type="radio"/>	<input checked="" type="radio"/>

Site Investigation Sample Results Notification

Form 4400-249 (R 03/14)

Page 2 of 2

Attached are:

- A map that shows the locations from which samples were collected. (The map needs to meet the requirements of s. NR 716.15 (4), Wis. Adm. Code.)
- A data table with specific contaminant levels at each sample location and whether or not the sample results exceed state standards.
- A copy of the laboratory results.

You are not identified as the person that is responsible for this contamination. However, your cooperation is important. Property owners may become legally responsible for contamination if they do not allow access to the person that is responsible so that person may complete the environmental investigation and clean up activities.

Option for written exemption: You have the option of requesting a written liability exemption from the DNR for contamination that originated on another property, or on property that you lease. To do this, you must present an adequate environmental assessment of your property and pay a \$700 fee for review of this information. If you are interested in this option, please see DNR publication # RR 589, "When Contamination Crosses a Property Line - Rights and Responsibilities of Property Owners", available at: dnr.wi.gov/files/PDF/pubs/rr/rr589.pdf.

Contact Information

Please address questions regarding this notification, or requests for additional information to the contact person listed above, or to one of the following contacts:

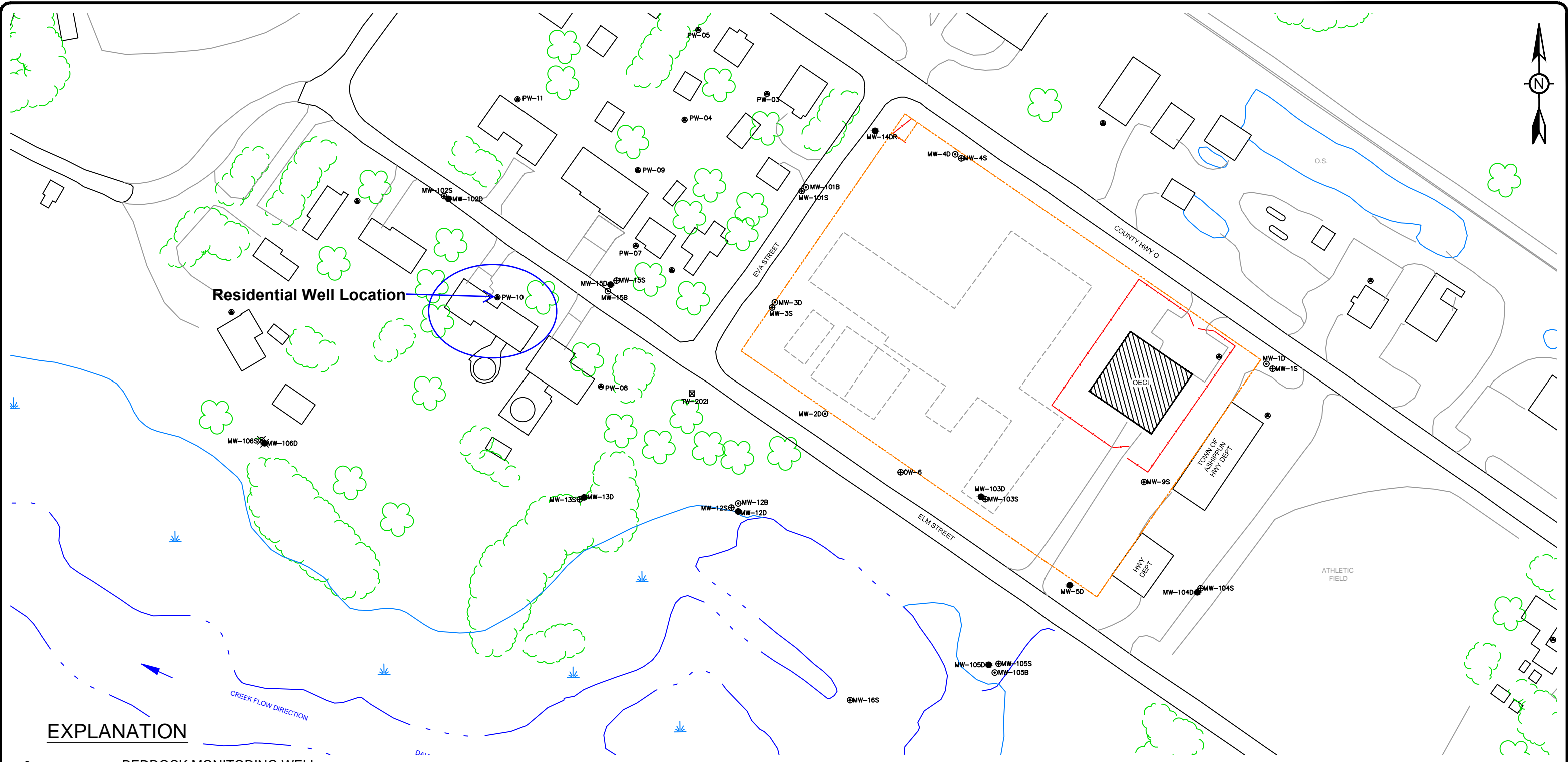
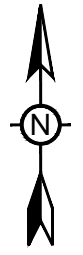
Environmental Consultant

Company Name		Contact Person Last Name	First Name	
Tetra Tech		Manthey	Mark	
Address		City	State	ZIP Code
175 N. Corporate Drive, Suite 100		Brookfield	WI	53045
Phone # (inc. area code)	Email			
(262) 792-1282	Mark.Manthey@tetrattech.com			

Select which agency: Natural Resources Agriculture, Trade and Consumer Protection

State of Wisconsin Department of Natural Resources

Contact Person Last Name		First Name	Phone # (inc. area code)	
Pelayo		Aristeo	(608) 267-3539	
Address		City	State	ZIP Code
101 S. Webster St., P.O. Box 7921		Madison	WI	53707-7921
Email				
aristeo.pelayo@wisconsin.gov				

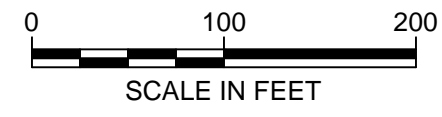


Residential Well Location



EXPLANATION

- ⊙MW-105B BEDROCK MONITORING WELL
- MW-105D DEEP UNCONSOLIDATED MONITORING WELL
- ⊕MW-105S SHALLOW UNCONSOLIDATED MONITORING WELL
- PW-11 RESIDENTIAL WELL
- ⊙MW-106D DEEP UNCONSOLIDATED SENTINEL WELL
- ⊙MW-106S SHALLOW UNCONSOLIDATED SENTINEL WELL
- ⊠TW-2021 TEMPORARY WELL
- FORMER OECI SITE BOUNDARY
- FENCED AREA



TITLE: OCONOMOWOC ELECTROPLATING COMPANY, INC. SITE LAYOUT AND WELL LOCATIONS			
LOCATION: ASHIPPUN, WISCONSIN			
	CHECKED	MAM	FIGURE: 1
	DRAFTED	HJW	
	PROJECT	117-7413001	
	DATE	12/5/14	

Groundwater Quality Data

	Date Sampled			10/31/2016 *
	Units	NR 140 ES	NR 140 PAL	PW-10
<u>VOCs</u>				
cis-1,2-Dichloroethene	µg/L	70.	7.	0.11 J
Methyl tert-butyl ether	µg/L	60.	12.	0.48

Notes:

µg/L = micrograms per liter, which is equivalent to parts per billion.

NR 140 ES = Wisconsin Department of Natural Resource Chapter NR 140 Enforcement Standard.

NR 140 PAL = Wisconsin Department of Natural Resource Chapter NR Preventive Action Limit.

Values in bold exceed the listed NR 140 PAL

***No ENFORCEMENT STANDARD has been attained or exceeded by these detected VOCs.**

Laboratory Quality Control Qualifiers

J: Estimated value.

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase:
 Project #: 117-7413001.01
 Folder #: 123362
 Purchase Order #:
 Contract #: 2747

Page 1 of 5
 Arrival Temperature: 4.9
 Report Date: 11/30/2016
 Date Received: 11/02/2016
 Reprint Date: 11/30/2016

CT LAB#: 798928	Sample Description: PW-10	DNR License/Well #: 4189/057	Sampled: 10/31/2016 1505
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Organic Results										
1,1,1,2-Tetrachloroethane	<0.040	ug/L	0.040	0.13	1	U	11/09/2016 20:38	RLD	EPA 8260C	
1,1,1-Trichloroethane	<0.050	ug/L	0.050	0.17	1	U	11/09/2016 20:38	RLD	EPA 8260C	
1,1,2,2-Tetrachloroethane	<0.017	ug/L	0.017	0.057	1	U	11/09/2016 20:38	RLD	EPA 8260C	
1,1,2-Trichloroethane	<0.050	ug/L	0.050	0.16	1	U	11/09/2016 20:38	RLD	EPA 8260C	
1,1-Dichloroethane	<0.060	ug/L	0.060	0.19	1	U	11/09/2016 20:38	RLD	EPA 8260C	
1,1-Dichloroethene	<0.060	ug/L	0.060	0.20	1	U	11/09/2016 20:38	RLD	EPA 8260C	
1,1-Dichloropropene	<0.060	ug/L	0.060	0.19	1	U	11/09/2016 20:38	RLD	EPA 8260C	
1,2,3-Trichlorobenzene	<0.040	ug/L	0.040	0.13	1	U	11/09/2016 20:38	RLD	EPA 8260C	
1,2,3-Trichloropropane	<0.040	ug/L	0.040	0.14	1	U	11/09/2016 20:38	RLD	EPA 8260C	
1,2,4-Trichlorobenzene	<0.040	ug/L	0.040	0.12	1	U	11/09/2016 20:38	RLD	EPA 8260C	
1,2,4-Trimethylbenzene	<0.040	ug/L	0.040	0.12	1	U	11/09/2016 20:38	RLD	EPA 8260C	
1,2-Dibromo-3-chloropropane	<0.090	ug/L	0.090	0.29	1	U	11/09/2016 20:38	RLD	EPA 8260C	
1,2-Dibromoethane	<0.070	ug/L	0.070	0.23	1	U	11/09/2016 20:38	RLD	EPA 8260C	
1,2-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U	11/09/2016 20:38	RLD	EPA 8260C	
1,2-Dichloroethane	<0.050	ug/L	0.050	0.18	1	U	11/09/2016 20:38	RLD	EPA 8260C	
1,2-Dichloropropane	<0.070	ug/L	0.070	0.23	1	U	11/09/2016 20:38	RLD	EPA 8260C	

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 798928 Sample Description:PW-10

DNR License/Well #: 4189/057

Sampled: 10/31/2016 1505

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,3,5-Trimethylbenzene	<0.050	ug/L	0.050	0.16	1	U		11/09/2016 20:38	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 20:38	RLD	EPA 8260C
1,3-Dichloropropane	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 20:38	RLD	EPA 8260C
1,4-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 20:38	RLD	EPA 8260C
2,2-Dichloropropane	<0.050	ug/L	0.050	0.15	1	U		11/09/2016 20:38	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.5	1	U		11/09/2016 20:38	RLD	EPA 8260C
2-Chlorotoluene	<0.030	ug/L	0.030	0.11	1	U		11/09/2016 20:38	RLD	EPA 8260C
2-Hexanone	<0.24	ug/L	0.24	0.81	1	U		11/09/2016 20:38	RLD	EPA 8260C
4-Chlorotoluene	<0.040	ug/L	0.040	0.12	1	U		11/09/2016 20:38	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.24	ug/L	0.24	0.82	1	U		11/09/2016 20:38	RLD	EPA 8260C
Acetone	<0.30	ug/L	0.30	1.0	1	U		11/09/2016 20:38	RLD	EPA 8260C
Benzene	<0.018	ug/L	0.018	0.059	1	U		11/09/2016 20:38	RLD	EPA 8260C
Bromobenzene	<0.040	ug/L	0.040	0.15	1	U		11/09/2016 20:38	RLD	EPA 8260C
Bromochloromethane	<0.030	ug/L	0.030	0.099	1	U		11/09/2016 20:38	RLD	EPA 8260C
Bromodichloromethane	<0.016	ug/L	0.016	0.054	1	U		11/09/2016 20:38	RLD	EPA 8260C
Bromoform	<0.040	ug/L	0.040	0.12	1	U		11/09/2016 20:38	RLD	EPA 8260C
Bromomethane	<0.080	ug/L	0.080	0.28	1	U Z		11/09/2016 20:38	RLD	EPA 8260C
Carbon disulfide	<0.070	ug/L	0.070	0.25	1	U		11/09/2016 20:38	RLD	EPA 8260C
Carbon tetrachloride	<0.050	ug/L	0.050	0.18	1	U		11/09/2016 20:38	RLD	EPA 8260C
Chlorobenzene	<0.040	ug/L	0.040	0.15	1	U		11/09/2016 20:38	RLD	EPA 8260C
Chloroethane	<0.070	ug/L	0.070	0.23	1	U		11/09/2016 20:38	RLD	EPA 8260C
Chloroform	<0.030	ug/L	0.030	0.11	1	U		11/09/2016 20:38	RLD	EPA 8260C
Chloromethane	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 20:38	RLD	EPA 8260C
cis-1,2-Dichloroethene	0.11	ug/L	0.070	0.23	1	J		11/09/2016 20:38	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.011	ug/L	0.011	0.038	1	U		11/09/2016 20:38	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1	U		11/09/2016 20:38	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 798928 Sample Description:PW-10

DNR License/Well #: 4189/057

Sampled: 10/31/2016 1505

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Dibromomethane	<0.050	ug/L	0.050	0.17	1	U		11/09/2016 20:38	RLD	EPA 8260C
Dichlorodifluoromethane	<0.060	ug/L	0.060	0.19	1	U		11/09/2016 20:38	RLD	EPA 8260C
Diisopropyl ether	<0.040	ug/L	0.040	0.14	1	U		11/09/2016 20:38	RLD	EPA 8260C
Ethylbenzene	<0.040	ug/L	0.040	0.15	1	U		11/09/2016 20:38	RLD	EPA 8260C
Hexachlorobutadiene	<0.050	ug/L	0.050	0.16	1	U		11/09/2016 20:38	RLD	EPA 8260C
Isopropylbenzene	<0.040	ug/L	0.040	0.12	1	U		11/09/2016 20:38	RLD	EPA 8260C
m & p-Xylene	<0.070	ug/L	0.070	0.23	1	U		11/09/2016 20:38	RLD	EPA 8260C
Methyl tert-butyl ether	0.48	ug/L	0.040	0.12	1			11/09/2016 20:38	RLD	EPA 8260C
Methylene chloride	<0.050	ug/L	0.050	0.16	1	U		11/09/2016 20:38	RLD	EPA 8260C
n-Butylbenzene	<0.030	ug/L	0.030	0.11	1	U		11/09/2016 20:38	RLD	EPA 8260C
n-Propylbenzene	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 20:38	RLD	EPA 8260C
Naphthalene	<0.030	ug/L	0.030	0.10	1	U		11/09/2016 20:38	RLD	EPA 8260C
o-Xylene	<0.040	ug/L	0.040	0.14	1	U		11/09/2016 20:38	RLD	EPA 8260C
p-Isopropyltoluene	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 20:38	RLD	EPA 8260C
sec-Butylbenzene	<0.050	ug/L	0.050	0.16	1	U		11/09/2016 20:38	RLD	EPA 8260C
Styrene	<0.030	ug/L	0.030	0.11	1	U		11/09/2016 20:38	RLD	EPA 8260C
tert-Butylbenzene	<0.040	ug/L	0.040	0.14	1	U		11/09/2016 20:38	RLD	EPA 8260C
Tetrachloroethene	<0.050	ug/L	0.050	0.18	1	U		11/09/2016 20:38	RLD	EPA 8260C
Tetrahydrofuran	<0.40	ug/L	0.40	1.5	1	U		11/09/2016 20:38	RLD	EPA 8260C
Toluene	<0.040	ug/L	0.040	0.13	1	U		11/09/2016 20:38	RLD	EPA 8260C
trans-1,2-Dichloroethene	<0.040	ug/L	0.040	0.14	1	U		11/09/2016 20:38	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.019	ug/L	0.019	0.063	1	U		11/09/2016 20:38	RLD	EPA 8260C
Trichloroethene	<0.050	ug/L	0.050	0.17	1	U		11/09/2016 20:38	RLD	EPA 8260C
Trichlorofluoromethane	<0.090	ug/L	0.090	0.14	1	U		11/09/2016 20:38	RLD	EPA 8260C
Vinyl acetate	<0.22	ug/L	0.22	0.73	1	U		11/09/2016 20:38	RLD	EPA 8260C
Vinyl chloride	<0.019	ug/L	0.019	0.064	1	U		11/09/2016 20:38	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 798928 Sample Description:PW-10

DNR License/Well #: 4189/057

Sampled: 10/31/2016 1505

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,4-Dioxane	<7.0	ug/L	7.0	23	1	U		11/09/2016 20:38	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications
Kansas NELAP ID# E-10368
Kentucky ID# 0023
ISO/IEC 17025-2005 A2LA Cert # 3806.01
North Carolina ID# 674
Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID E8711111, Expires Annually
Louisiana ID # 115843
Virginia ID# 7608
Illinois NELAP ID # 002413
Wisconsin (WOSB) ID# WI-5499-WBE
Maryland ID# 344

Notice: This form may be used to comply with the requirements of s. NR 716.14 (2), Wis. Adm. Code; however, use of this form is not required. An alternate format may be used. The rule requires that notification be provided to 1) property owners when someone else is conducting the sampling, 2) to occupants of property belonging to the responsible person, and 3) to owners and occupants of property that does not belong to the responsible person but has been affected by contamination arising on his or her property. Notification is required within 10 business days of receiving the sample results. Personal information collected will be used for program administration and may be provided to requesters to the extent required by Wisconsin's Open Records law [ss. 19.31-19.39, Wis. Stats.].

NOTE: Under s. NR 716.14, Wis. Adm. Code, the responsible party must also submit sample results and other required information to the DNR. We recommend that copies of the sample results notifications be included with that submittal, along with all attachments. Using the same format used for data presentation for a closure request may be helpful to all parties. See s. NR 716.14, Wis. Adm. Code for the full list of information to be submitted to the DNR.

Notification of Property Owners and Occupants:

This notification form has been provided to you in order to provide the results of environmental sampling that has been conducted on property that you own or occupy. Samples were collected in accordance with the methods identified in the site investigation work plan, in accordance with s. NR. 716.09 and 716.13, Wis. Adm. Code. This sampling was conducted as a result of contamination originating at the following location.

Site Information

Site Name		DNR ID # (BRRTS #)	
Oconomowoc Electroplating Company, Inc. (OECI) Superfund Site		02-14-000905	
Address	City	State	ZIP Code
W2573 Oak Street	Ashippun	WI	53003

Responsible Party

The person(s) responsible for completing this environmental investigation is:

Property Owner

Oconomowoc Electroplating Company, Inc.

Address	City	State	ZIP Code
W2573 Oak Street	Ashippun	WI	53003
Contact Person	Phone Number (include area code)		
William Ryan (US EPA RPM), Aristco Pelayo (WDNR PM)	(608) 767-3539		

Person or company that collected samples

Ashley Kowalewski, Tetra Tech, Inc.

Sample Results (Results Attached)

Reason for Sampling: Routine Other (define) _____

The contaminants that have been identified at this time on property that you own or occupy include:

Contaminant	In Soil?		In Groundwater?	
	Yes	No	Yes	No
Gasoline	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Diesel or Fuel Oil	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Solvents	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Heavy Metals	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Pesticides	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Other: _____	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

This sampling event included sampling of a drinking water well. <input checked="" type="radio"/> Yes <input type="radio"/> No
If yes, the sampled drinking water well had detectable contaminants. <input checked="" type="radio"/> Yes <input type="radio"/> No

Contaminants in Vapor

	Yes	No
Indoor Air	<input type="radio"/>	<input checked="" type="radio"/>
Sub-slab	<input type="radio"/>	<input checked="" type="radio"/>
Exterior Soil Gas	<input type="radio"/>	<input checked="" type="radio"/>

Site Investigation Sample Results Notification

Form 4400-249 (R 03/14)

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Attached are:

- A map that shows the locations from which samples were collected. (The map needs to meet the requirements of s. NR 716.15 (4), Wis. Adm. Code.)
- A data table with specific contaminant levels at each sample location and whether or not the sample results exceed state standards.
- A copy of the laboratory results.

You are not identified as the person that is responsible for this contamination. However, your cooperation is important. Property owners may become legally responsible for contamination if they do not allow access to the person that is responsible so that person may complete the environmental investigation and clean up activities.

Option for written exemption: You have the option of requesting a written liability exemption from the DNR for contamination that originated on another property, or on property that you lease. To do this, you must present an adequate environmental assessment of your property and pay a \$700 fee for review of this information. If you are interested in this option, please see DNR publication # RR 589, "When Contamination Crosses a Property Line - Rights and Responsibilities of Property Owners", available at: dnr.wi.gov/files/PDF/pubs/rr/rr589.pdf.

Contact Information

Please address questions regarding this notification, or requests for additional information to the contact person listed above, or to one of the following contacts:

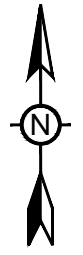
Environmental Consultant

Company Name		Contact Person Last Name		First Name	
Tetra Tech		Manthey		Mark	
Address			City	State	ZIP Code
175 N. Corporate Drive, Suite 100			Brookfield	WI	53045
Phone # (inc. area code)	Email				
(262) 792-1282	Mark.Manthey@tetrattech.com				

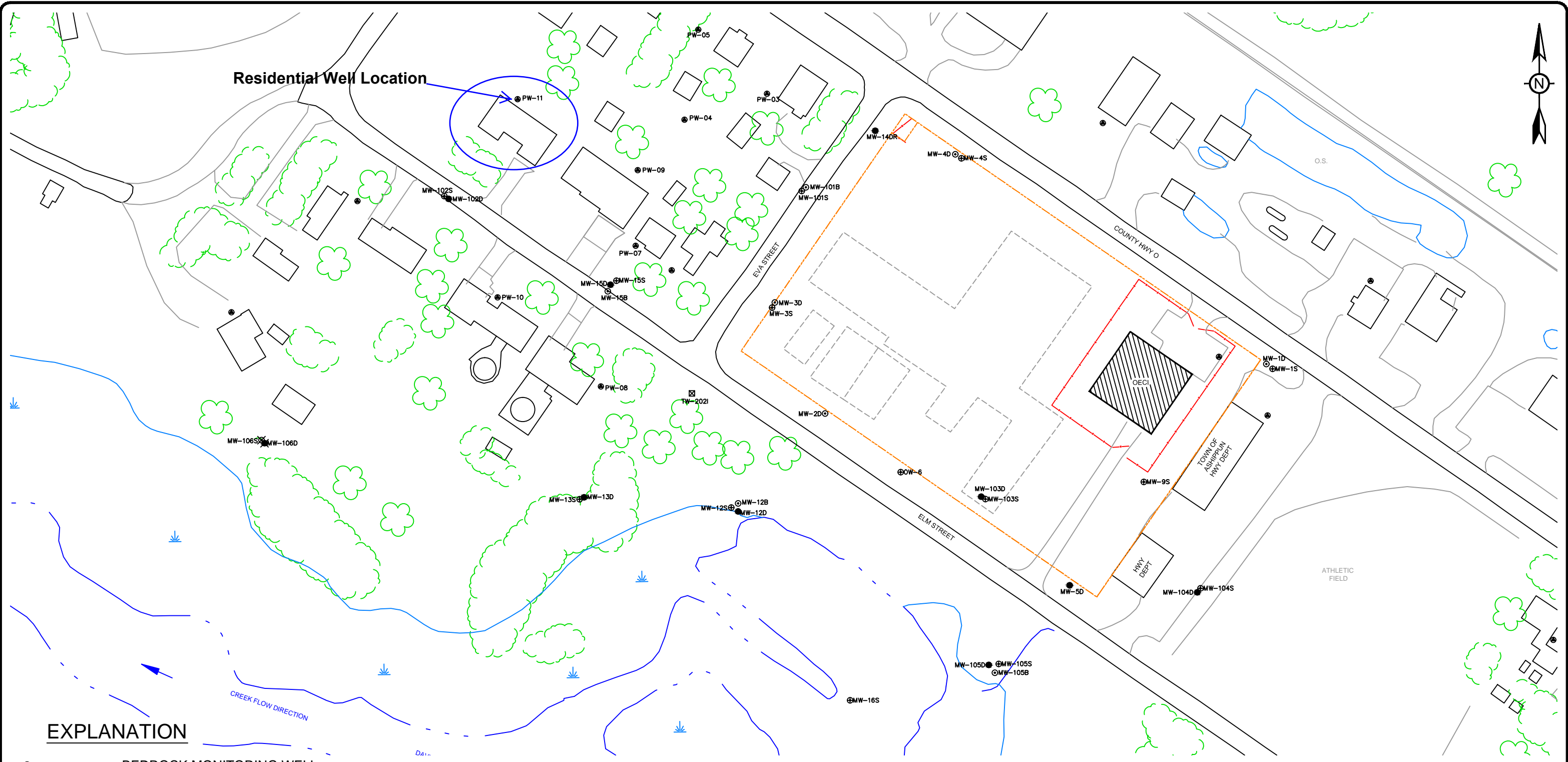
Select which agency: Natural Resources Agriculture, Trade and Consumer Protection

State of Wisconsin Department of Natural Resources

Contact Person Last Name		First Name		Phone # (inc. area code)	
Pelayo		Aristeo		(608) 267-3539	
Address			City	State	ZIP Code
101 S. Webster St., P.O. Box 7921			Madison	WI	53707-7921
Email					
aristeo.pelayo@wisconsin.gov					



Residential Well Location



EXPLANATION

- ⊙MW-105B BEDROCK MONITORING WELL
- MW-105D DEEP UNCONSOLIDATED MONITORING WELL
- ⊕MW-105S SHALLOW UNCONSOLIDATED MONITORING WELL
- PW-11 RESIDENTIAL WELL
- ⊙MW-106D DEEP UNCONSOLIDATED SENTINEL WELL
- ⊕MW-106S SHALLOW UNCONSOLIDATED SENTINEL WELL
- ⊠TW-2021 TEMPORARY WELL
- FORMER OECI SITE BOUNDARY
- FENCED AREA



TITLE: OCONOMOWOC ELECTROPLATING COMPANY, INC. SITE LAYOUT AND WELL LOCATIONS			
LOCATION: ASHIPPUN, WISCONSIN			
	CHECKED	MAM	FIGURE: 1
	DRAFTED	HJW	
	PROJECT	117-7413001	
	DATE	12/5/14	

Groundwater Quality Data

	Date Sampled			11/2/2016 *
	Units	NR 140 ES	NR 140 PAL	PW-11
<u>VOCs</u>				
cis-1,2-Dichloroethene	µg/L	70.	7.	1.2
Diisopropyl ether	µg/L	--	--	0.14
Methyl tert-butyl ether	µg/L	60.	12.	0.89
trans-1,2-Dichloroethene	µg/L	100.	20.	0.092 J

Notes:

µg/L = micrograms per liter, which is equivalent to parts per billion.

NR 140 ES = Wisconsin Department of Natural Resource Chapter NR 140 Enforcement Standard.

NR 140 PAL = Wisconsin Department of Natural Resource Chapter NR Preventive Action Limit.

Values in bold exceed the listed NR 140 PAL

***No ENFORCEMENT STANDARD has been attained or exceeded by these detected VOCs.**

Laboratory Quality Control Qualifiers

J: Estimated value.

ANALYTICAL REPORT

TETRA TECH
 MARK MANTHEY
 175 N CORPORATE DRIVE
 SUITE 100
 BROOKFIELD, WI 53045

Project Name: OCONOMOWOC ELECTROPLATING
 Project Phase:
 Project #: 117-7413001.01
 Folder #: 123409
 Purchase Order #:
 Contract #: 2747

Page 1 of 5
 Arrival Temperature: 1.1
 Report Date: 11/30/2016
 Date Received: 11/03/2016
 Reprint Date: 11/30/2016

CT LAB#: 800083 Sample Description: PW-11

DNR License/Well #: 4189/058

Sampled: 11/02/2016 1645

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Organic Results										
1,1,1,2-Tetrachloroethane	<0.040	ug/L	0.040	0.13	1	U	11/10/2016 12:06	11/10/2016 12:06	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.050	ug/L	0.050	0.17	1	U	11/10/2016 12:06	11/10/2016 12:06	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.017	ug/L	0.017	0.057	1	U	11/10/2016 12:06	11/10/2016 12:06	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.050	ug/L	0.050	0.16	1	U	11/10/2016 12:06	11/10/2016 12:06	RLD	EPA 8260C
1,1-Dichloroethane	<0.060	ug/L	0.060	0.19	1	U	11/10/2016 12:06	11/10/2016 12:06	RLD	EPA 8260C
1,1-Dichloroethene	<0.060	ug/L	0.060	0.20	1	U	11/10/2016 12:06	11/10/2016 12:06	RLD	EPA 8260C
1,1-Dichloropropene	<0.060	ug/L	0.060	0.19	1	U	11/10/2016 12:06	11/10/2016 12:06	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.040	ug/L	0.040	0.13	1	U	11/10/2016 12:06	11/10/2016 12:06	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.040	ug/L	0.040	0.14	1	U	11/10/2016 12:06	11/10/2016 12:06	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.040	ug/L	0.040	0.12	1	U	11/10/2016 12:06	11/10/2016 12:06	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.040	ug/L	0.040	0.12	1	U	11/10/2016 12:06	11/10/2016 12:06	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.090	ug/L	0.090	0.29	1	U	11/10/2016 12:06	11/10/2016 12:06	RLD	EPA 8260C
1,2-Dibromoethane	<0.070	ug/L	0.070	0.23	1	U	11/10/2016 12:06	11/10/2016 12:06	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U	11/10/2016 12:06	11/10/2016 12:06	RLD	EPA 8260C
1,2-Dichloroethane	<0.050	ug/L	0.050	0.18	1	U	11/10/2016 12:06	11/10/2016 12:06	RLD	EPA 8260C
1,2-Dichloropropane	<0.070	ug/L	0.070	0.23	1	U	11/10/2016 12:06	11/10/2016 12:06	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 800083 Sample Description:PW-11

DNR License/Well #: 4189/058

Sampled: 11/02/2016 1645

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,3,5-Trimethylbenzene	<0.050	ug/L	0.050	0.16	1	U		11/10/2016 12:06	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 12:06	RLD	EPA 8260C
1,3-Dichloropropane	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 12:06	RLD	EPA 8260C
1,4-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 12:06	RLD	EPA 8260C
2,2-Dichloropropane	<0.050	ug/L	0.050	0.15	1	U		11/10/2016 12:06	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.5	1	U		11/10/2016 12:06	RLD	EPA 8260C
2-Chlorotoluene	<0.030	ug/L	0.030	0.11	1	U		11/10/2016 12:06	RLD	EPA 8260C
2-Hexanone	<0.24	ug/L	0.24	0.81	1	U		11/10/2016 12:06	RLD	EPA 8260C
4-Chlorotoluene	<0.040	ug/L	0.040	0.12	1	U		11/10/2016 12:06	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.24	ug/L	0.24	0.82	1	U		11/10/2016 12:06	RLD	EPA 8260C
Acetone	<0.30	ug/L	0.30	1.0	1	U		11/10/2016 12:06	RLD	EPA 8260C
Benzene	<0.018	ug/L	0.018	0.059	1	U		11/10/2016 12:06	RLD	EPA 8260C
Bromobenzene	<0.040	ug/L	0.040	0.15	1	U		11/10/2016 12:06	RLD	EPA 8260C
Bromochloromethane	<0.030	ug/L	0.030	0.099	1	U		11/10/2016 12:06	RLD	EPA 8260C
Bromodichloromethane	<0.016	ug/L	0.016	0.054	1	U		11/10/2016 12:06	RLD	EPA 8260C
Bromoform	<0.040	ug/L	0.040	0.12	1	U Z		11/10/2016 12:06	RLD	EPA 8260C
Bromomethane	<0.080	ug/L	0.080	0.28	1	U		11/10/2016 12:06	RLD	EPA 8260C
Carbon disulfide	<0.070	ug/L	0.070	0.25	1	U		11/10/2016 12:06	RLD	EPA 8260C
Carbon tetrachloride	<0.050	ug/L	0.050	0.18	1	U		11/10/2016 12:06	RLD	EPA 8260C
Chlorobenzene	<0.040	ug/L	0.040	0.15	1	U		11/10/2016 12:06	RLD	EPA 8260C
Chloroethane	<0.070	ug/L	0.070	0.23	1	U		11/10/2016 12:06	RLD	EPA 8260C
Chloroform	<0.030	ug/L	0.030	0.11	1	U		11/10/2016 12:06	RLD	EPA 8260C
Chloromethane	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 12:06	RLD	EPA 8260C
cis-1,2-Dichloroethene	1.2	ug/L	0.070	0.23	1			11/10/2016 12:06	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.011	ug/L	0.011	0.038	1	U		11/10/2016 12:06	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1	U		11/10/2016 12:06	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 800083 Sample Description:PW-11

DNR License/Well #: 4189/058

Sampled: 11/02/2016 1645

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Dibromomethane	<0.050	ug/L	0.050	0.17	1	U		11/10/2016 12:06	RLD	EPA 8260C
Dichlorodifluoromethane	<0.060	ug/L	0.060	0.19	1	U		11/10/2016 12:06	RLD	EPA 8260C
Diisopropyl ether	0.14	ug/L	0.040	0.14	1			11/10/2016 12:06	RLD	EPA 8260C
Ethylbenzene	<0.040	ug/L	0.040	0.15	1	U		11/10/2016 12:06	RLD	EPA 8260C
Hexachlorobutadiene	<0.050	ug/L	0.050	0.16	1	U		11/10/2016 12:06	RLD	EPA 8260C
Isopropylbenzene	<0.040	ug/L	0.040	0.12	1	U		11/10/2016 12:06	RLD	EPA 8260C
m & p-Xylene	<0.070	ug/L	0.070	0.23	1	U		11/10/2016 12:06	RLD	EPA 8260C
Methyl tert-butyl ether	0.89	ug/L	0.040	0.12	1			11/10/2016 12:06	RLD	EPA 8260C
Methylene chloride	<0.050	ug/L	0.050	0.16	1	U		11/10/2016 12:06	RLD	EPA 8260C
n-Butylbenzene	<0.030	ug/L	0.030	0.11	1	U		11/10/2016 12:06	RLD	EPA 8260C
n-Propylbenzene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 12:06	RLD	EPA 8260C
Naphthalene	<0.030	ug/L	0.030	0.10	1	U		11/10/2016 12:06	RLD	EPA 8260C
o-Xylene	<0.040	ug/L	0.040	0.14	1	U		11/10/2016 12:06	RLD	EPA 8260C
p-Isopropyltoluene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 12:06	RLD	EPA 8260C
sec-Butylbenzene	<0.050	ug/L	0.050	0.16	1	U		11/10/2016 12:06	RLD	EPA 8260C
Styrene	<0.030	ug/L	0.030	0.11	1	U		11/10/2016 12:06	RLD	EPA 8260C
tert-Butylbenzene	<0.040	ug/L	0.040	0.14	1	U		11/10/2016 12:06	RLD	EPA 8260C
Tetrachloroethene	<0.050	ug/L	0.050	0.18	1	U		11/10/2016 12:06	RLD	EPA 8260C
Tetrahydrofuran	<0.40	ug/L	0.40	1.5	1	U		11/10/2016 12:06	RLD	EPA 8260C
Toluene	<0.040	ug/L	0.040	0.13	1	U		11/10/2016 12:06	RLD	EPA 8260C
trans-1,2-Dichloroethene	0.092	ug/L	0.040	0.14	1	J		11/10/2016 12:06	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.019	ug/L	0.019	0.063	1	U		11/10/2016 12:06	RLD	EPA 8260C
Trichloroethene	<0.050	ug/L	0.050	0.17	1	U		11/10/2016 12:06	RLD	EPA 8260C
Trichlorofluoromethane	<0.090	ug/L	0.090	0.14	1	U		11/10/2016 12:06	RLD	EPA 8260C
Vinyl acetate	<0.22	ug/L	0.22	0.73	1	U		11/10/2016 12:06	RLD	EPA 8260C
Vinyl chloride	<0.019	ug/L	0.019	0.064	1	U		11/10/2016 12:06	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 800083	Sample Description:PW-11	DNR License/Well #: 4189/058	Sampled: 11/02/2016 1645
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,4-Dioxane	<7.0	ug/L	7.0	23	1	U		11/10/2016 12:06	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

<u>Code</u>	<u>Description</u>	<u>QC Qualifiers</u>
B	Analyte detected in the associated Method Blank.	
C	Toxicity present in BOD sample.	
D	Diluted Out.	
E	Safe, No Total Coliform detected.	
F	Unsafe, Total Coliform detected, no E. Coli detected.	
G	Unsafe, Total Coliform detected and E. Coli detected.	
H	Holding time exceeded.	
I	BOD incubator temperature was outside acceptance limits during test period.	
J	Estimated value.	
L	Significant peaks were detected outside the chromatographic window.	
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.	
N	Insufficient BOD oxygen depletion.	
O	Complete BOD oxygen depletion.	
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.	
Q	Laboratory Control Sample outside acceptance limits.	
R	See Narrative at end of report.	
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.	
T	Sample received with improper preservation or temperature.	
U	Analyte concentration was below detection limit.	
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.	
W	Sample amount received was below program minimum.	
X	Analyte exceeded calibration range.	
Y	Replicate/Duplicate precision outside acceptance limits.	
Z	Specified calibration criteria was not met.	

Current CT Laboratories Certifications
Kansas NELAP ID# E-10368
Kentucky ID# 0023
ISO/IEC 17025-2005 A2LA Cert # 3806.01
North Carolina ID# 674
Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID E8711111, Expires Annually
Louisiana ID # 115843
Virginia ID# 7608
Illinois NELAP ID # 002413
Wisconsin (WOSB) ID# WI-5499-WBE
Maryland ID# 344